

The path to
Cancer Control
in Alabama



A Comprehensive Plan

2011-2015

**Alabama Department
of Public Health**

Our Vision Statement

To eliminate the burden of cancer in Alabama.

To reduce the incidence, morbidity and mortality of cancer in all Alabamians and build a sustainable effort for cancer prevention and control in Alabama.

Our Mission Statement

The mission of the Alabama Comprehensive Cancer Control Coalition (**ACCCC**) is to develop and sustain an integrated and coordinated approach to reducing cancer incidence, morbidity and mortality, and to improve the quality of life and care for cancer survivors, their families and their caregivers. **ACCCC** fulfills its mission by improving access, reducing cancer disparities, advocating for public policy and implementing the Alabama Comprehensive Cancer Control Plan, which addresses primary prevention, early detection, treatment, survivorship, follow-up care and palliative care.

The mission fits well with the Centers for Disease Control and Prevention's (CDC) current priority areas, which are to: emphasize primary prevention, coordinate early detection and treatment interventions, address public health needs of cancer survivors, implement policies to sustain cancer control, eliminate disparities to achieve health equity and measure outcomes and impact through evaluation.

- **ACCCC** will coordinate, enhance and strengthen the efforts of public agencies, academic institutions and community-based private and public organizations that are concerned with cancer prevention, control and care in Alabama.
- **ACCCC** will assist with dissemination and utilization of state registry data as well as the sharing of other information procured by various entities concerned with cancer-related issues throughout the state.
- **ACCCC** will continue to work in partnership with the Alabama Department of Public Health (ADPH) and other institutions and organizations to improve cancer prevention, control and care in Alabama; to evaluate areas of greatest need; and to help coordinate the resources to meet the identified needs.

- **ACCCC** will educate and advocate for policies about cancer issues in Alabama that will favorably affect cancer rates and outcomes among Alabamians.
- **ACCCC** will act as a clearinghouse for information on cancer control activities and will partner with other stakeholders to help disseminate information on cancer control activities in Alabama.
- **ACCCC** will track the progress of implementation of cancer control objectives through annual evaluation.

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Dedication

by John W. Waterbor, M.D., Dr.P.H.

Alabama's Cancer Control Plan for 2011-2015 is dedicated to all Alabama cancer control leaders, past and present. The roots of the **ACCCC** reach back to the 1970s with the formation and achievements of the Alabama Cancer Coordinating Council, a collection of physicians and public health professionals whose mission was to maintain surveillance of cancer incidence in Alabama and to disseminate information on cancer screening and treatment to all oncologists in our state. The Council facilitated communication among Alabama's cancer physicians and created an infrastructure that led to our present-day **ACCCC**.

The Council met quarterly, with meetings in Birmingham, Montgomery, Mobile and Huntsville, thereby involving physicians and public health professionals from Alabama's major cities. On occasion, meetings were held in Gadsden and Dothan, thereby reinforcing the grassroots nature of the Council. Representatives from the Alabama Division of the American Cancer Society, and from other health-concerned organizations, attended as well. The Council was led by Alabama's State Health Officer, Ira Myers, M.D. (followed by Earl Fox, M.D.), and the ADPH's Director of Cancer Prevention and Control, Mr. Max Cain (followed by Mr. Gene Dickey). Regular Council members included Herman F. Lehman, Jr., D.D.S., M.P.H., John Waterbor, M.D., Dr.P.H., Ed Dowling, M.D., and Mark Conrad, M.D.

The Council focused on improving access to cancer screening and treatment, and elevating the standard of care for cancer patients in Alabama. A major concern was that lives are lost to cancer when patients have limited access to medical care, or when less than state-of-the-art cancer treatment is delivered. Each quarterly meeting included patient "case history" presentations, including biopsy information, treatment plans and patient outcomes. The Council members discussed each case and decided how to better handle similar cases in the future. There was an emphasis on cervical cancer screening and treatment because Alabama's cervical cancer mortality rate was among the highest in the U.S., and because funding was available for Pap smear screening.

In 1989, the The University of Alabama at Birmingham (UAB) Comprehensive Cancer Center, working with the ADPH, formed a Cancer Strategic Planning Committee for Alabama, chaired by Ms. Ruth Harrell of the ADPH. Their recommendations created program priorities for cancer control in Alabama for years to come. Under Jack Hataway, M.D., ADPH's director of chronic disease prevention, the Council took on more of a public health approach to cancer control, addressing topics such as smoking cessation, exercise and nutrition. Through the decade of the '90s the Alabama Cancer Congress annual meetings became the venue where cancer statistics and trends were presented and discussed. Data became more solid in 1996 with the advent of the Alabama Statewide Cancer Registry.

In November 1999 the by-laws of the **ACCCC** were approved. In accordance with these by-laws, program leadership changes over the years, with an elected Chair from outside the state health department and an ADPH senior staff member serving as program coordinator. Samuel Moseley, M.D., was elected the Coalition's first chair and Suzanne Churchill Reaves, M.P.A., M.P.H., became its first program coordinator. In 2002 Kenneth Brewington, M.D., succeeded Dr. Moseley as Chair. Linda Goodson, RN, became Chair in 2005. With the retirement of Suzanne Reaves in 2006, Kathryn Chapman, Dr.P.A., became program coordinator and director of ADPH's Comprehensive Cancer Control Program. In 2007 Raymond Wynn, M.D., was elected Coalition Chair. With his departure from Alabama in 2009, he was succeeded by our current Chair, Marc Sussman. A guiding force throughout the **ACCCC's** lifetime has been Edward Partridge, M.D., now director of the UAB Comprehensive Cancer Center.

Our gratitude and appreciation are extended to all members of the Alabama Cancer Coordinating Council, the Cancer Strategic Planning Committee, the Alabama Cancer Congress and the **ACCCC**, whose time, effort and energy have advanced the control of cancer in Alabama. Our efforts in 2011-2015 will build upon their achievements and bring us closer to a cancer-free Alabama.

A brief biography of those key individuals who have willingly served the Coalition are presented on the following pages.



MR. MARC SUSSMAN

serves as Administrator of Ambulatory Care at Cooper Green Mercy Hospital (CGMH) in Birmingham, Alabama. CGMH is a 319 bed acute care county owned full service hospital providing care to all residents of Jefferson

County, Alabama, regardless of ability to pay. His role in this position is to provide overall planning, budgeting, operations, monitoring and guidance to ten in-house and off-site ambulatory care clinics serving over 80,000 patients annually. Services provided include general, family and internal medicine, cardiology, endocrinology, dermatology, nephrology, neurology, pulmonology, general surgery, ENT, orthopedics, ophthalmology, urology, obstetrics and gynecology, sickle cell, hematology, oncology and HIV/AIDS treatment.

Mr. Sussman began his tenure at CGMH as Administrator of the Balm of Gilead, a ten bed palliative care unit treating only those patients with terminal illness and a do not resuscitate order. The unit serves over 300 patients annually providing both general acute and respite care. Cancer is the second highest diagnosis, after heart disease, cited for admission to the Balm.

Mr. Sussman has served CGMH in the administration of federal, state, local and private grants, volunteer services, media and public relations and marketing.

Mr. Sussman's career experience includes strategic planning, certificate of need preparation, facility planning and construction management, both as a direct employee and in a consultative role.

Mr. Sussman's interest in cancer prevention stems from the death of his mother from breast cancer in 1960 when he was five years old and the death of his father in 1986 from leukemia. His sensitivity to eradicating cancer is further heightened by the death of both of his wife's parents due to lung and colon cancer.

Mr. Sussman has been active in the **ACCCC** since 2004 and has served as Vice Chair and Chair since 2008.



KATHRYN CHAPMAN, Dr.P.A.,

currently serves as director of the Cancer Prevention Program for Alabama and is program manager for the Alabama FITWAY Colorectal Cancer Prevention Program. Alabama is one of 26 states and tribal organizations to receive a

grant from the CDC for colorectal cancer prevention. The FITWAY program also includes limited screening services in eligible counties within Alabama. In 1996, Dr. Chapman had ectopic thyroid cancer. It has been 14 years since the surgery and radioactive iodine treatment cured her cancer. Dr. Chapman is a tireless advocate for cancer prevention and control in Alabama and elimination of disparities.



RAYMOND B. WYNN, M.D.,

was the associate director for the University of South Alabama Mitchell Cancer Institute (USA-MCI) in Mobile, Alabama, and directed the Institute's public education and health disparities research for its cancer programs.

Dr. Wynn held academic appointments as associate professor of Interdisciplinary Clinical Oncology, associate professor of Radiology and chief of Radiation Oncology at the USA-MCI and USA College of Medicine respectively. Currently, Dr. Wynn is the associate director of University of Pittsburgh Cancer Centers' Radiation Oncology Network and clinical professor of Radiation Oncology. He also serves as executive medical director of The Regional Cancer Center in Erie, Pennsylvania, an affiliate of UPMC Cancer Centers. Dr. Wynn's clinical and research interests include IMRT, IGRT, hypo-fractionated stereotactic radiotherapy, brain tumors and prostate cancer.



MS. LINDA GOODSON

currently works with the Center for the Study of Community Health at UAB. Founded in 1993, the Center focuses on reducing health risks among underserved populations throughout the state of Alabama and plays a leading role in the development of community-based research at UAB. The Center's high quality research is grounded in the development of the Community Health Advisors model (CHA), a widely-used model adapted by the Center in the early '90s and piloted in a rural Alabama black community. This model is used in a number of newer initiatives at UAB and its replication is a testament to the CHP's focus on community-based solutions to further inform the field of health prevention and health promotion. Linda's personal experience with breast cancer and professional interest also led her to become involved with the **ACCCC**.



H. F. LEHMAN Jr., D.D.S.,

M.P.H., was the UAB School of Public Health's first assistant dean. He taught epidemiology courses to public health, medical, dental, optometry and nursing students. His impact on the school was

enormous. Former students recall his knowledge, wit, good humor, folksy way of speaking, great stories and the way he could make even complicated ideas seem simple. In the early 1980s Dr. Lehman's concern about Alabama's excessive mortality rate from cervical cancer led him to invent what was truly Alabama's first (cervical) cancer registry. He contacted all hospitals and medical laboratories in the state that processed Pap smears and, after eliminating duplicate entries and data from non-residents of Alabama, he calculated the cervical cancer incidence rate by attaching the number of Pap smears to the size of the female population, by race and by county.

His publication was probably the first to characterize the incidence rate of cancer in Alabama. Dr. Lehman retired from UAB in 1992 and passed away in 1995. Even so, his legacy is still very much a part of UAB and Alabama. The Herman Lehman, Jr. Endowed Scholarship provides support to residents of the state.



SAMUEL MOSELEY, M.D.,

served as the first Chair of the **ACCCC** and was a member of the workgroup that drafted the original Alabama Comprehensive Cancer Control Plan. His pioneering efforts in establishing community-

based cancer programs led to the current cancer control efforts in Alabama.



EDWARD E. PARTRIDGE,

M.D., director of UAB Comprehensive Cancer Center, is a gynecologist-oncologist and professor who helped to create a community of cancer care-givers in Alabama and to reduce racial and ethnic

health disparities. He recently received the *Birmingham Business Journal* 2009 Health Care Heroes Physician Provider Award in recognition of his outstanding efforts in the fight against cancer.

Currently, Dr. Partridge is principal investigator for the Deep South Network for Cancer Control, a community-based participatory research network, as well as a partnership involving the UAB Comprehensive Cancer Center, Morehouse School of Medicine and Tuskegee University, which pairs research at UAB with investigators at historically black colleges and universities to enhance cancer disparity research. In November 2010, he began serving as the president of the American Cancer Society's national board of directors.

From The State Health Officer

I am pleased to introduce the 2011-2015 Alabama Comprehensive Cancer Control Plan as produced by the Alabama Comprehensive Cancer Control Coalition. In keeping with the Coalition's mission, this plan addresses efforts to combat the cancer burden by reducing the incidence and mortality of the disease in Alabama.

Each year, thousands of Alabamians are diagnosed with cancer, and thousands more succumb to the disease. Reduction in the rates of cancer in Alabama is achievable through an aggressive plan of action that includes fundamental lifestyle changes such as elimination of tobacco use, increased emphasis on physical activity and proper nutrition, participation in cancer screenings and vaccination, and appropriate and timely treatment.

The Alabama Comprehensive Cancer Control Coalition is a diverse, statewide group of organizations and partners dedicated to implementing this important Plan to fight cancer. It is through their hard work that this Plan was developed, and it is our hope that this Plan becomes the driving force behind cancer control activities in the state.

I encourage you to become involved in reducing the cancer burden on Alabama residents. For more information on how you can join the Alabama Comprehensive Cancer Control Coalition to help with this important task, please visit our website at alabamacancercontrol.org and find us on Facebook at facebook.com/ALCompCancerCoalition.

Sincerely,



Donald E. Williamson, M.D.
State Health Officer



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Acknowledgements

The development of the 2011–2015 Alabama Comprehensive Cancer Control Plan is the result of ongoing collaboration among statewide organizations and individuals who are committed to improving the state's cancer incidence and mortality rates. Over the past decades many have dedicated their time and expertise to establishing and promoting the **ACCCC**. Special thanks are extended to the individuals who participated in the first statewide strategic planning process which provided the vision and insight for the success of the **ACCCC**. In addition, the Executive Committee and the project staff have played an invaluable role in developing the Plan's content and laying the groundwork for the eventual achievement of the Plan's objectives. Finally, great appreciation is due to **ACCCC** members for their energy and dedication to improving the cancer prevention and control efforts in Alabama. A listing of current **ACCCC** members is found in the appendices.

Executive Committee Members

Marc Sussman, Chairperson

Cindy Tanton, Vice-Chairperson

Margaret Sullivan, Secretary

Raymond Wynn, M.D., Immediate Past-Chairperson

Kat Wilson, Palliative Care Chair

Jennifer Hartley, Coalition Building Chair

Cindy Tanton, Prostate Chair

Renee Desmond, Ph.D., Evaluation Chair

John Waterbor, M.D., Colorectal Chair

Executive Summary

This third Alabama statewide cancer plan covers the years 2011-2015 and seeks to build on the success of the previous efforts of cancer control in the state, as well as to develop new objectives that address cancer prevention efforts over the lifespan and address disparities in cancer. The approach to defining objectives for this plan was systematic and sought input from all members of the **ACCCC**. The mission of the **ACCCC** is to develop and sustain an integrated and coordinated approach to reducing cancer incidence, morbidity and mortality and to improve the quality of life and care for cancer survivors, their families and their caregivers. **ACCCC** fulfills its mission by improving access, reducing cancer disparities, advocating for public policy and implementing the Alabama Comprehensive Cancer Control Plan, which addresses primary prevention, early detection, treatment, survivorship, follow-up care and palliation.

In 1989, ADPH participated in an organization-wide strategic planning process for which specific programmatic areas developed strategic plans. The first statewide comprehensive plan for cancer control in Alabama was a product of this process. A Cancer Control Strategic Planning Committee consisting of eight members was appointed by the state health officer to develop the plan. The original members of this committee represented the state health department, academic medical institutions and the clinical oncology community. Additional individuals, organizations and agencies were consulted during the development of the plan to assure the appropriateness and inclusiveness of the goals and strategies addressed. In July 1998, the Cancer Prevention Branch of the ADPH initiated a review to update the plan for the next century. Original members were contacted to participate in the revision and to determine the process for conducting this update.

The newly-formed Comprehensive Cancer Control Core Work Group (CWG) provided the vision and leadership to expand the scope of the original plan. The work continued until the full **ACCCC** met in September 2001 to adopt the 2001-2005 Plan. A cooperative agreement, awarded the same year between the CDC and ADPH, provided the necessary funding to begin statewide implementation. The original 2001-2005 Plan had seven sections (Prevention, Early Detection, Treatment and Care, Environmental and Occupa-

tional, Research, Surveillance and Evaluation) with a total of 53 objectives.

The release of the 2006-2010 Plan expanded on the framework of the 2001-2005 Plan. Focus was placed on populations where cancer disparities exist. In addition, the **ACCCC** added a section that focused on cancer survivorship and new and emerging cancer research. As cancers are detected at earlier stages and treatments become more effective, people are living longer, an achievement that was reflected in the expanded section on survivorship in the 2006-2010 Plan. Also, a much greater emphasis was placed on cancer prevention, including proper nutrition and weight management, regular physical activity, tobacco prevention or cessation and avoiding overexposure to ultraviolet light. The 2006-2010 Plan had six sections (Prevention; Early Detection; Survivorship; Environmental, Medical and Occupational Exposure; Surveillance; and New and Emerging Research) and had expanded the total objectives to 126. In the 2006-2010 Plan, lifestyle choices would be the health focus. Peer education, community-based interventions and better access to preventive healthcare would support Alabamians in making better lifestyle choices and help the state continue to make progress in the battle against cancer.

The original organizational structure of the **ACCCC** has been an effective basis for developing plan objectives and their implementation. However, as the **ACCCC** began updating the plan for 2011-2015, the need for the objectives to cut across the lifespan and cancer sites emerged. In keeping with the Goals of Healthy People 2020 (2010), the direction of the **ACCCC** Executive Committee and input from Coalition partners, the process of revising the plan objectives was implemented. The Executive Committee adopted the framework of Healthy People 2020 for the evaluation of 2006-2010 objectives:

1. The objectives must be measureable and should address a range of issues that affect cancer, such as: behavior and health outcomes, availability of, access to and content of behavioral and health service interventions, socio-environmental conditions and community capacity.
2. The objectives should drive strategies that work toward the proposed targets to be achieved by 2015.

3. The objectives should be measureable over the time period of the plan, including a baseline assessment. If a baseline assessment is unavailable, proposed means to obtain this baseline should be described.
4. The objectives should be supported by evidence-based interventions and strategies.
5. The objectives should address disparities, including a method for quantifying the disparity with population-based data. The **ACCCC** agreed that all of the objectives should be data driven, utilizing valid, reliable state data in the public domain with assurance of data points throughout the plan period.

The **ACCCC** conducted a formal evaluation through Coalition member input in April of 2010 to initiate the process of review of the plan's objectives. A total of 28 members assisted with this process, resulting in realignment of the plan to include the following content areas:

Prevention, including:

1. Tobacco Use
2. Nutrition and Weight Status
3. Physical Activity and Fitness
4. Ultraviolet Light and Ionizing Radiation Exposure
5. HPV and Cancer Vaccines

Secondary Prevention, including:

6. Early Detection (Breast, Cervical, Colorectal, Prostate, Melanoma)

Treatment, including:

7. Genomics
8. Patient Navigation
9. Clinical Trials

Tertiary Prevention, including:

10. Survivorship, Follow-up, Palliative Care and Hospice Care

Health Information Technology (IT), Health Communication and Surveillance, including:

11. Delivery Networks of Statewide Plan

Health education and community-based programs are considered as strategies under the thematic objective areas. The **ACCCC** committees

recommended these content areas as better aligned with Healthy People 2020 areas and reordering of the plan in this fashion would facilitate cross-referencing between state and national data. The plan would facilitate the use of data metrics across the human lifespan and would allow for socioeconomic status (SES) and demographic measures to be included in drafting and evaluating relevant objectives.

The objectives from the 2006-2010 Plan were reviewed by our sub-committees and the disposition of the each objective was categorized as retain, retain with modifications, archive, or develop a new objective. From the early drafting of the objectives, the **ACCCC** met again in July 2010. The July meeting was focused on preparation of strategies for each objective and advocacy goals. The current plan is written to meet the vision for 2011-2015, which is to reduce the cancer incidence and mortality of cancer among all Alabamians and work to build a sustainable effort for cancer prevention and control in Alabama.

In 2008, the Division of Cancer Prevention and Control of the CDC marked the first decade of the NCCCP (Major, 2009). Alabama will continue to partner with NCCCP and CDC to realize improvement in prevention, early detection, treatment, survival and quality of care among Alabamians diagnosed with cancer. The overall goals will be aligned with priorities of the CDC, outlined in 2009. The strategic direction of the Coalition is aligned with the following CDC priorities:

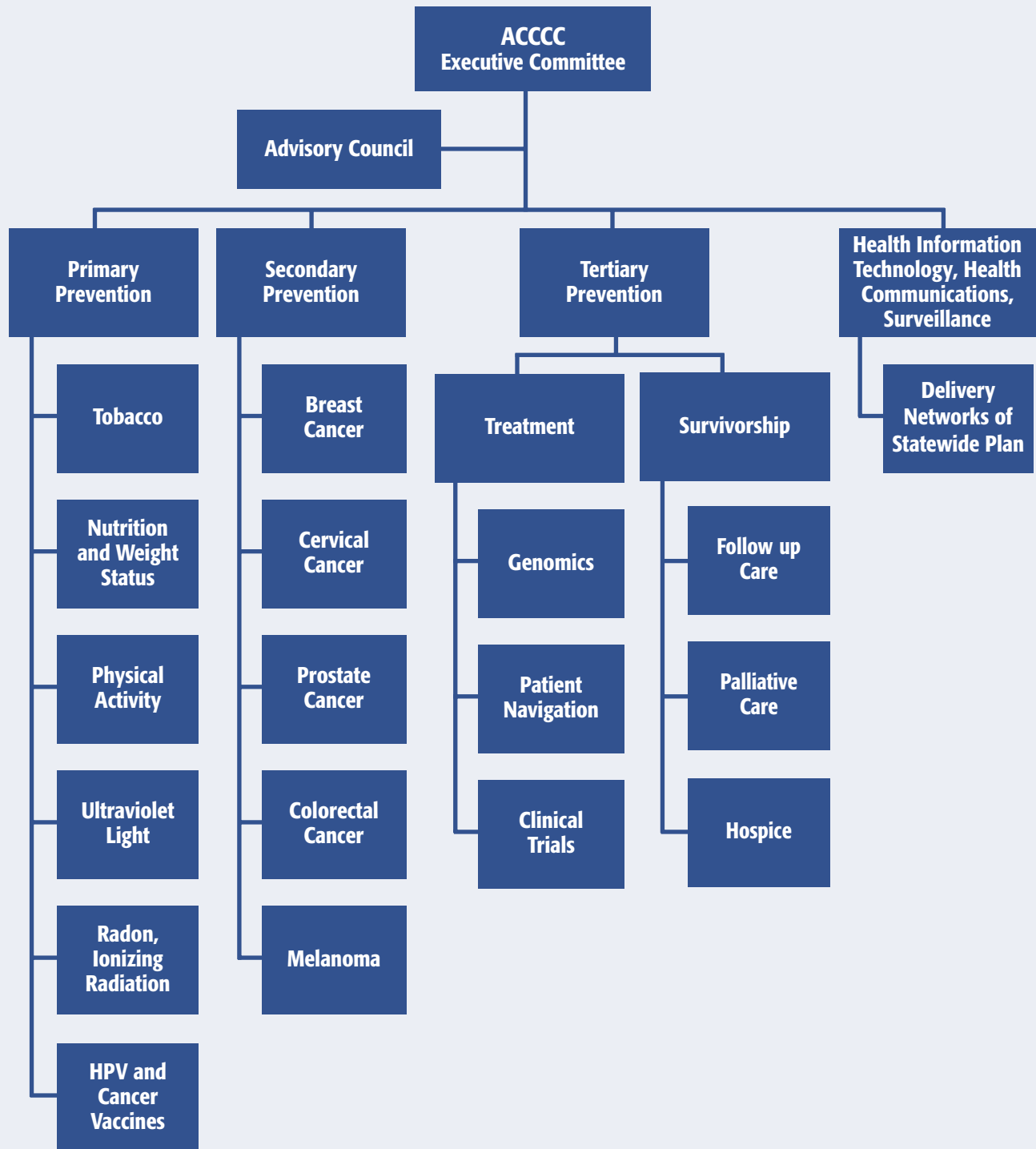
- **Emphasize primary prevention**
- **Coordinate early detection and treatment interventions**
- **Address public health needs of cancer survivors**
- **Implement policy, system and environmental changes to sustain cancer control**
- **Measure outcomes and impact through evaluation**
- **Eliminate health disparities to achieve health equity**

REFERENCES:

- Healthy People 2020. (2010). Retrieved from <http://www.healthypeople.gov>
- Major, A., Stewart, S.L. (2009). Celebrating 10 years of the national comprehensive cancer control program, 1998-2008. *Preventing Chronic Diseases*, 6, 1-6.

Alabama Comprehensive Cancer Control Coalition 2010 Organizational Structure

Figure 1:



Evaluation

The **ACCCC** partnered with the UAB Division of Preventive Medicine to evaluate implementation of the Alabama Statewide Comprehensive Cancer Control Plan as well as the ongoing activities and operations of the Coalition. The evaluation component of the **ACCCC** Plan assesses program implementation and program outcomes at the short-term, intermediate-term and long-term levels. Objectives within each section of the plan are examined to determine the degree to which they are realistic and measurable. In addition, it is recognized that it may not be possible at this time to evaluate every objective in this comprehensive plan. A degree of flexibility is necessary and the evaluation plan is based on priority areas, available data and implementation of the plan strategies.

Data are collected through use of a Monitoring Form and compiled for the evaluation report. The Monitoring Form is available on-line at the **ACCCC** website (alabamacancercontrol.org) and

paper copies are distributed at quarterly meetings for completion. Implementation data, coupled with surveillance data, provide a more comprehensive picture of plan activities. Evaluation reports are prepared on an annual basis with input by the Advisory Board, as well as other primary stakeholders. These reports are used in a feedback loop to improve and strengthen the plan.

The **ACCCC** must ensure that the activities reflect surveillance data and capacity development to implement quality evaluations. This routine evaluation of all Coalition activities is disseminated and used to improve programmatic efforts in the state, especially to reduce the most common cancers in the state for each gender. The Coalition Satisfaction Survey is also administered annually in the spring and the results are presented to the executive officers as well as the Coalition membership. Finally, the methods of program evaluation are updated as the field is evolving in cancer prevention and control.

Alabama Cancer Facts and Figures and Healthy People 2020

The Alabama Statewide Cancer Registry (ASCR) partners with the American Cancer Society (ACS) to produce the annual *Alabama Cancer Facts and Figures* (2009). The *Alabama Cancer Facts and Figures* has become an important document for anyone with an interest in cancer control. The publication illustrates a variety of factors that affect cancer prevention, detection and quality of life by providing not only data, but interpretation of how these factors affect one another. *Alabama Cancer Facts and Figures* provides accurate and timely cancer data and cancer risk factor information to key Alabama stakeholders at all levels. The document also serves as an essential planning and evaluation tool for the **ACCCC** Plan.

The U.S. Department of Health and Human Services released **Healthy People 2020 Public Meetings 2009 Draft Objectives** in 2009 as an effort for states, communities, professional organizations and others to help improve the

health of the nation. This initiative includes a set of health objectives for the nation to achieve over the second decade of the new century. The effort is designed to achieve four overarching goals:

1. Eliminate preventable disease, disability, injury and premature death
2. Achieve health equity, eliminate disparities and improve the health of all groups
3. Create social and physical environments that promote good health for all
4. Promote healthy development and healthy behaviors across every stage of life

ACCCC plays an important role in addressing the objectives in these publications since many are relevant to cancer prevention, early detection and survivorship. The **ACCCC** Plan uses these 2020 objectives as a guide to develop strategies and measure progress in achieving the outcomes.

REFERENCES:

ACS, ADPH. (2009). *Alabama Cancer Facts and Figures 2009*. Montgomery, AL: American Cancer Society, 2010.
Healthy People 2020. (2010). Draft Objectives. Retrieved from <http://www.healthypeople.gov>

Cancer Rates and Trends

INCIDENCE RATES: In Alabama, there were approximately 23,640 new cases of invasive cancer in 2010 and approximately 65 people heard that they were diagnosed with cancer each day (ACS, ADPH, 2010). Of those 23,640 new cases, the top four cancers included lung cancer (4,160 cases), female breast cancer (3,450 cases), prostate cancer (3,300 cases) and colon and rectal cancer (2,300 cases). Males in Alabama had a higher cancer incidence rate from 2003-2007 than females with a rate of 567.9 per 100,000 versus 381.8 per 100,000. Among males, black males had a higher cancer incidence rate than white males with a rate of 622.2 per 100,000 versus 551.8 per 100,000 from 2003-2007. Among females, white females had a higher cancer incidence rate than black females with a rate of 387.2 per 100,000 versus 361.6 per 100,000 during the same time period (ACS, ADPH, 2010).

MORTALITY RATES: In Alabama, 10,150 people were expected to die of cancer in 2010. Lung cancer accounts for approximately 31.4 percent of all estimated cancer deaths (ACS, ADPH 2010). Males in Alabama had a higher cancer mortality rate than females from 1999-2008 with a rate of 269.3 per 100,000 versus 160.9 per 100,000. Among males, black males had a higher cancer mortality rate than white males with a rate of 338.6 per 100,000 versus 255.4 per 100,000 from 1999-2008. Among females, black females had a higher cancer mortality rate than white females with a rate of 175.1 per 100,000 versus 157.5 per 100,000 during the same time period. The Alabama cancer incidence and mortality data are shown on the following two pages (ACS, ADPH, 2010).

REFERENCES:

ACS, ADPH. (2010). *Alabama Cancer Facts and Figures 2010*. Montgomery, AL: American Cancer Society, 2010.

Table 1:

Alabama and United States Cancer Incidence Rates, by Site, Race & Sex 2003-2007*

| MALES AND FEMALES | | | | | | |
|----------------------|-----------|-------|-------|---------------|-------|-------|
| | ALABAMA | | | UNITED STATES | | |
| | All Races | White | Black | All Races | White | Black |
| All Sites | 458.4 | 453.1 | 463.1 | 471.5 | 470.6 | 484.3 |
| Lung and Bronchus | 75.8 | 78.4 | 66.2 | 68.1 | 69.3 | 72.5 |
| Colon and Rectum | 50.0 | 41.7 | 58.4 | 48.9 | 47.9 | 57.3 |
| Melanoma of the Skin | 17.2 | 21.8 | 1.0 | 18.3 | 20.4 | 1.0 |

| MALES | | | | | | |
|----------------------|-----------|-------|-------|---------------|-------|-------|
| | ALABAMA | | | UNITED STATES | | |
| | All Races | White | Black | All Races | White | Black |
| All Sites | 567.9 | 551.8 | 622.2 | 552.5 | 544.9 | 623.1 |
| Lung and Bronchus | 106.4 | 106.5 | 106.8 | 84.9 | 84.3 | 103.5 |
| Colon and Rectum | 60.8 | 58.5 | 71.1 | 57.1 | 56.1 | 67.2 |
| Melanoma of the Skin | 22.8 | 28.1 | 1.0 | 23.1 | 25.4 | 1.1 |
| Prostate | 158.0 | 136.2 | 235.6 | 153.5 | 143.8 | 230.0 |

| FEMALES | | | | | | |
|----------------------|-----------|-------|-------|---------------|-------|-------|
| | ALABAMA | | | UNITED STATES | | |
| | All Races | White | Black | All Races | White | Black |
| All Sites | 381.8 | 387.2 | 361.6 | 414.7 | 418.8 | 392.9 |
| Lung and Bronchus | 53.5 | 57.4 | 39.7 | 55.6 | 57.0 | 51.9 |
| Colon and Rectum | 41.7 | 39.5 | 50.1 | 42.4 | 41.4 | 50.7 |
| Melanoma of the Skin | 13.3 | 17.4 | 1.0 | 15.0 | 16.9 | 1.0 |
| Breast | 114.5 | 114.8 | 109.4 | 121.8 | 123.5 | 113.0 |
| Cervix | 8.6 | 8.1 | 10.1 | 8.1 | 7.7 | 10.7 |

Rates are per 100,000 and age-adjusted to the 2000 U.S. (19 age groups) standard.

* All rates for malignant cases only, except the rates for All Sites which includes bladder cancer in situ.

Source Alabama Data: Alabama Statewide Cancer Registry (ASCR), 2010. Data Years: 2003-2007.

Source United States Data: NAACCR CINA+ Online, 2010, Data Years: 2003-2007.

Table 2:

Alabama and United States Cancer Mortality Rates, by Site, Race & Sex, 1999-2007*

| | MALES AND FEMALES | | | | | |
|----------------------|-------------------|-------|-------|---------------|-------|-------|
| | ALABAMA | | | UNITED STATES | | |
| | All Races | White | Black | All Races | White | Black |
| All Sites | 203.9 | 196.9 | 235.7 | 194.1 | 192.6 | 236.9 |
| Lung and Bronchus | 62.4 | 63.6 | 58.3 | 53.6 | 54.0 | 60.3 |
| Colon and Rectum | 18.6 | 16.9 | 25.9 | 18.8 | 18.3 | 25.9 |
| Melanoma of the Skin | 2.7 | 3.3 | 0.5 | 2.7 | 3.0 | 0.4 |
| | | | | | | |
| | MALES | | | | | |
| | ALABAMA | | | UNITED STATES | | |
| | All Races | White | Black | All Races | White | Black |
| All Sites | 269.3 | 255.4 | 338.6 | 239.1 | 235.8 | 315.7 |
| Lung and Bronchus | 93.5 | 92.4 | 100.0 | 71.4 | 70.7 | 92.0 |
| Colon and Rectum | 23.4 | 21.3 | 33.1 | 22.6 | 22.0 | 31.7 |
| Melanoma of the Skin | 4.0 | 5.0 | 0.3 | 3.9 | 4.4 | 0.5 |
| Prostate | 32.3 | 24.3 | 70.0 | 26.7 | 24.6 | 58.8 |
| | | | | | | |
| | FEMALES | | | | | |
| | ALABAMA | | | UNITED STATES | | |
| | All Races | White | Black | All Races | White | Black |
| All Sites | 160.9 | 157.5 | 175.1 | 163.8 | 163.4 | 189.4 |
| Lung and Bronchus | 40.4 | 42.9 | 31.6 | 40.7 | 41.7 | 39.5 |
| Colon and Rectum | 15.3 | 13.8 | 21.3 | 15.9 | 15.5 | 22.1 |
| Melanoma of the Skin | 1.8 | 2.1 | 0.5 | 1.7 | 2.0 | 0.4 |
| Breast | 25.1 | 23.1 | 32.0 | 25.0 | 24.4 | 33.3 |
| Cervix | 3.1 | 2.4 | 5.5 | 2.6 | 2.3 | 4.7 |

Rates are per 100,000 and age-adjusted to the 2000 U.S. (19 age groups) standard.

* Alabama Rates also include 2008 data.

Source Alabama Data: Alabama Statewide Cancer Registry (ASCR), 2010. Data Years: 1999-2008.

Source United States Data: CDC WONDER, 2010. Data Years: 1999-2007.

Alabama Demographics

According to the 2009 U.S. Census estimate, Alabama has 4,708,708 residents. Between 2000 and 2009, Alabama's population grew 5.9 percent, lower than the national rate of 9.1 percent. The racial make-up of the state is 71.4 percent white, 26.4 percent black, 0.5 American Indian and Alaska Native, 1.0 Asian and 1.1 persons reporting two or more races. In 2000, residents in 3.9 percent of households in Alabama reported speaking a language other than English in the home (U.S. Census, 2010).

BLACK POPULATION

In 2009, 26.4 percent of Alabamians were black, over twice the national rate of 12.8 percent. Federal poverty rates are higher among blacks, along with lower levels of private insurance and access to healthcare services. Postsecondary education among the black population is significantly lower than among white counterparts.

GROWING HISPANIC POPULATION

According to the U.S. Census Bureau (2010) about 15 percent of the total U.S. population identified themselves as Hispanic in 2007. The term "Hispanic" is used for those who indicate that their origins are in Mexico, Puerto Rico, Cuba, Central or South America, or other Spanish speaking countries. Within Alabama, Hispanics account for a growing segment of the population. In 1990, 0.6 percent of Alabama's residents reported being of Hispanic origin. In 2000, 1.7 percent of the population was Hispanic and in 2008, 2.9 percent were identified as being Hispanic or of Latino origin. The northeast and southeast counties have higher proportions of Hispanic residents than other counties in the state.

AGING POPULATION

Alabama has declining birth and death rates and, like the rest of the United States, its population is aging. The median age of Alabamians in 2000 was 35.8 years, compared to 32.9 years in 1990. In 2000, 13 percent of Alabama's population was 65 years and older, which was higher than the national rate of 12.4 percent. The female population is larger than the male population throughout the state. For example, the population of Alabamians 65 and older is 60 percent female and 40 percent male. Women typically have a longer lifespan than men.

EDUCATIONAL ATTAINMENT

In 2000, 75.3 percent of Alabamians reported having at least a high school education, which is lower than the national average of 80.4 percent.

POVERTY

The median Alabama household income in 2008 was \$42,586 per year, 18 percent below the national average of \$52,029. Model-based estimates for 2006 show that Shelby County had the highest median household income (\$66,476) followed by Madison County (\$51,434). The lowest incomes were in Wilcox (\$19,949) and Perry counties (\$22,637).

UNINSURED POPULATION

The majority of individuals who live below the poverty threshold have no health insurance. Based on the 2007 Small Area Health Insurance Estimates from the Census Bureau, the percentage of Alabamians under age 65 lacking health insurance per county ranged from 11 percent (Talladega County) to 21 percent (Lee County) (U.S. Census, 2011).

Table 3:

Alabama Population Characteristics

| | |
|---|-----------|
| Population, 2009 estimate | 4,708,708 |
| Population, percent change, April 1, 2000 to July 1, 2009 | 5.9% |
| Population estimates base (April 1) 2000 | 4,447,382 |
| Persons under 5 years old, percent, 2008 | 6.7% |
| Persons under 18 years old, percent, 2008 | 24.1% |
| Persons 65 years old and over, percent, 2008 | 13.8% |
| Female persons, percent, 2008 | 51.6% |
| White persons, percent, 2008 (a) | 71.0% |
| Black persons, percent, 2008 (a) | 26.4% |
| American Indian and Alaska Native persons, percent, 2008 (a) | 0.5% |
| Asian persons, percent, 2008 (a) | 1.0% |
| Persons reporting two or more races, percent, 2008 | 1.1% |
| Persons of Hispanic or Latino origin, percent, 2008 (b) | 2.9% |
| White persons not Hispanic, percent, 2008 | 68.4% |
| High school graduates, percent of persons age 25+, 2000 | 75.3% |
| Bachelor's degree or higher, percent of persons age 25+, 2000 | 19.0% |
| Persons per household, 2000 | 2.49 |
| Median household income, 2008 | \$42,586 |
| Persons below poverty level, percent, 2008 | 15.9% |

(a) Includes persons reporting only one race.

(b) Hispanics may be of any race, so also are included in applicable race categories.

X Not applicable.

Source: US Census Bureau State & County QuickFacts.

The demographic summary statistics at the state level provide only some insight on the geographic distribution of socioeconomic factors and population in the state. Alabama is primarily a rural state with only 16 of 67 counties identified in 2000 as having less than 50 percent of the population living in rural areas. Further, the Alabama Black Belt consists of a cluster of primarily agricultural counties, with dark rich soil, extending

east to west across central Alabama, which have high rates of poverty, illiteracy and infant mortality, and are identified as areas that may be at risk for population disparities. These are counties where the poverty rate of residents was 20 percent or more in 1970, 1980, 1990 and 2000, and are important to consider in cancer prevention and control efforts (Black Belt Action Commission, 2010).

Figure 2:
Traditional Counties of the Alabama Black Belt

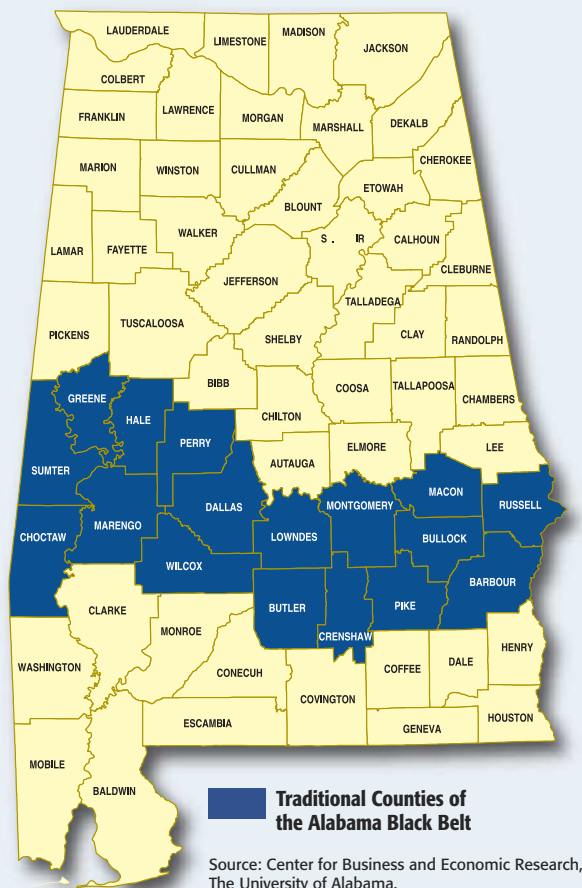


Figure 3:
Rural Counties of Alabama 2000



REFERENCES:

Black Belt Action Commission. (2010). Overview. Retrieved from http://blackbeltaction.alabama.gov/Docs/BBAC_Overview.pdf. Accessed 8/27/2010.

U.S. Census Bureau: State and County QuickFacts. (2010). Alabama Quick Facts from the Census Bureau. Retrieved from <http://quickfacts.census.gov/qfd/states/01000.html>.

U.S. Census Bureau. (2011). Small Area Health Insurance Estimates. Retrieved from <http://www.census.gov/did/www/sahie/>.

Disparities in Alabama

Substantial progress has led to advanced methods of cancer detection, diagnosis and treatment. Unfortunately, not all populations have reaped benefits from this progress. “Cancer disparities” means the difference in incidence, prevalence, mortality and burden of cancer that exists among specific population groups (Hayes, 2005). The subject of assessing disparities in cancer requires a method to ascertain the disparity. In general, one needs a measure of the cancer outcome (such as mortality rate), a categorical indicator associated with the factor (such as race, income, poverty or education) and a means of comparing the cancer outcome across the groups. Many methods have been proposed to compare groups, including a ratio of the health indicator rates in two different social groups, typically the best-off and the worst-off; the absolute difference in the health indicator rates in two different social groups; or more complex methods that consider the health indicator rates in all social groups, not only the extremes.

The incidence and mortality rates of cancer show disparities among rural and minority populations within Alabama. These populations are more likely to experience the following: being diagnosed with and dying from preventable cancers, being diagnosed with late-stage disease for cancers detectable through screening at an early stage, receiving either no treatment or treatment that does not meet currently accepted standards of care, dying of cancers that are generally curable and suffering from cancer without the

benefit of pain control and other palliative care. Disparities in healthcare arise not only from disparities in financial access, but also from deficiencies in the organization and delivery of services.

An example of a disparity in cancer status would be that black women are more likely to die from breast cancer than white women in Alabama, although white women are diagnosed with breast cancer more frequently than black women (Harper, 2010).

An example of complete health equity would be the absence of all disparities in health, healthcare and the living and working conditions that influence health. Policies that promote health equity are those that exemplify fairness, or that strive progressively over time to move toward fairness (Healthy People 2020, 2010).

The goals of the **ACCCC** include identifying and improving the health equity of disparate populations in Alabama affected with cancer, such as: older individuals, minority groups, groups with lower income, education and health literacy, rural populations and non-English speaking populations. New strategies need to enhance data collection and reporting on differences in incidence, prevalence, mortality and burden of cancer and related adverse conditions among various disparate populations.

The Coalition will maintain diversity in the stakeholders who can identify appropriate strategies for various disparate populations.

REFERENCES:

Harper, S., Lynch, J. (2010). *Methods for Measuring Cancer Disparities: Using Data Relevant to Healthy People 2010 Cancer-Related Objectives*. Retrieved from http://seer.cancer.gov/publications/disparities/measuring_disparities.pdf.

Hayes, N., Rollins, R., Weinberg, A., et al. (2005). Cancer-related disparities: weathering the perfect storm through comprehensive cancer control approaches. *Cancer Causes and Control*, 16 (Supp 1),41-50.

Healthy People 2020. (2010). *The Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2020. Phase 1 Report. Recommendations for the Framework and Format of Healthy People 2020*. Retrieved from <http://www.healthypeople.gov>.

Advocacy

Cancer is not just a medical issue; it is also a psychological, social and economic issue. The disease becomes political when elected officials make policy decisions that affect the lives of cancer survivors, their families, their career opportunities and other potential cancer patients. Cancer advocates in Alabama address all these issues at various levels and in their own unique ways. Some groups have paid consultants while others influence decision makers by their personal testimonies. Through implementation of the **ACCC** Plan, various approaches will be coordinated to increase Alabama's capacity to help prevent cancer, broaden access to quality cancer treatment and follow-up care and improve the quality of life for those affected by the disease.

Partners, such as the ACS and the Coalition for a Tobacco Free Alabama (CTFA), train individuals and groups to be advocates and to provide a voice for people who are not usually heard. ACS and CTFA initiatives rely on the combined efforts of a community-based, grassroots network of cancer survivors, caregivers, volunteers, staff, health care professionals, public health organizations and other partners.

ACCCP staff must maintain competency in issue framing and policy analysis and formulation. New strategies will need to support these policy interventions. In 2010, the ACS presented the Capitol Dome Award to the ADPH for life-saving work to reduce cancer incidence and mortality, citing the following departmental accomplishments in fighting cancer:

- Providing free breast and cervical cancer screenings and treatment for eligible women.
- Helping reduce tobacco use in adults and youth, promoting tobacco cessation and eliminating exposure to secondhand smoke.
- Providing free prostate cancer screenings for eligible men in certain counties.
- Providing a coordinated and integrated approach through the **ACCC** to improve access, reduce cancer disparities, advocate for public policy and implement the **ACCC** Plan.

- Offering free colorectal cancer screening and diagnostic work-ups to eligible men and women living in 16 Alabama counties.
- Reducing disparities across all programs.

One notable recent advocacy achievement in Alabama is the passage of the Breast, Cervical and Colorectal Cancer Awareness Act in 2010 (House Bill 600), effective January 1, 2011, which provides that the ADPH shall establish programs for breast, cervical and colorectal cancer awareness. The purposes include:

1. Reducing morbidity and mortality from breast, cervical and colorectal cancer through prevention, early detection and treatment.
2. Making breast, cervical and colorectal cancer screening services available to underserved and uninsured individuals throughout the state, especially those whose economic circumstances or geographic locations limit access to screening facilities.
3. Raising public awareness about breast, cervical and colorectal cancer.
4. Collecting, classifying and analyzing relevant research information and data concerning breast, cervical and colorectal cancer.
5. Serving as a resource for information regarding breast, cervical and colorectal cancer.

Other statewide efforts have included:

- Increasing the state tobacco tax and increased penalties for those who sell tobacco to minors.
- Receiving a five-year CDC Integrating Colorectal Cancer Screening Program with Other Chronic Disease Programs Award from CDC.
- Advocating for a comprehensive statewide smoke-free law.

Specific examples can be found throughout this document in each section.

Evidence-Based Practice

Evidence-based practice is using knowledge of what works to influence practice and policy. These research-tested intervention programs are based on peer-reviewed and funded research studies. Evidence-based programs save time and resources during planning and implementation by focusing on known effective solutions (NCI, 2006).

Health technologies will play an important role in U.S. healthcare. The use of electronic health records (EHR) is growing (Atienza, 2010). By collecting data at multiple levels, new technologies could help researchers organize information by cancer prevention area, by environment and by individual or group. The National Institutes of Health (NIH) promotes research initiatives that provide researchers with tools to examine health behaviors and health outcomes.

The goal of the **ACCCC** is to ensure that all comprehensive control interventions are evidence-based or contribute to the evidence base and that the **ACCCC** activities reflect cancer surveillance data. To ensure continuity with recommendations, *The Guide to Community Based Services* will be used to guide the strategies listed under each topical area. For some areas, there may be gaps in the data available to guide strategies, and proposed strategies for data collection will be listed (The Community Guide, 2011).

REFERENCES:

Atienza, A.A., Hesse, B.W., Gustafson, D.H., Croyle, R.T. (2010). E-Health research and patient-centered care. Examining theory, methods and application. *American Journal of Preventative Medicine*, 38, 85-88.

The Community Guide. (2011). The Guide to Community Based Services. Retrieved from <http://www.thecommunityguide.org>.

National Cancer Institute (NCI). (2006). Using what works: adapting evidence-based programs to fit your needs. *National Institute of Health*, Pub. No. 06-5874. Retrieved from http://cancercontrol.cancer.gov/use_what_works/mod4/start.htm.

Funding for Cancer Control Activities in Alabama

The ACS and LIVESTRONG reported that cancer's worldwide economic toll in 2008 was \$895 billion (2010). The economic and human health costs of cancer and cancer disparities are important factors to consider in guiding policy makers for funding cancer control activities. Different frameworks are used to measure costs and cost-related questions. Currently, cost-effectiveness is often not a component of evidence-based interventions and clinical trials. Whether or not resource use and costs vary across disparate groups is often not measured or assessed.

The Patient Protection and Affordable Care Act, passed in 2010, mandates that non-grandfathered group health plans and health insurance issuers must provide benefits and prohibit cost sharing with regard to preventive coverage, including services relevant to cancer prevention and control in adults (Rangel, 2009). The required benefits include:

1. Alcohol misuse screening and counseling.
2. Colorectal cancer screening for adults over 50.
3. Diet counseling for adults at higher risk for chronic disease.
4. Immunization for Human papillomavirus (HPV) within recommendations.
5. Obesity screening and counseling for all adults.
6. Tobacco use screening for all adults and cessation interventions for tobacco users.

Among children, immunization to HPV is included, as well as Body Mass Index (BMI) measurements, obesity screening and counseling.

Given the current improvements through insurance coverage expansion, it will be necessary to identify changes in the healthcare delivery system that can reduce the economic burden of cancer and cancer disparities. The **ACCCC** partners will work with policy makers and partners to ensure that budgetary costs of cancer control in Alabama will be based on expected improvements in long-term societal costs. In actuality, there may be no short-term budgetary saving for policy changes. However, the economic burden of preventable cancers due to obesity and tobacco use require a long-term perspective.

Coalition members and their respective organizations (e.g. Deep South Network for Cancer Control) share missions similar to the **ACCCC**. Therefore, many of the organizations which receive extramural funding will provide in-kind support for the implementation of the **ACCCC** strategies. In order to ensure sustainability of the resources over time, the **ACCCC** membership will need to reach out to new partners.

REFERENCES:

ACS, LIVESTRONG. (2010). The global economic cost of cancer. Atlanta, GA: American Cancer Society.

Rangel, C. (2009). Patient Protection and Affordable Care Act (H.R. 3590). Retrieved from <http://thomas.loc.gov/cgi-bin/bdquery/z?d111:H.R.3590>.

Format of the 2011-2015 Alabama Comprehensive Cancer Control Plan

The Alabama Comprehensive Cancer Control Plan is divided into sections that address topics relevant to cancer control in Alabama as shown below.

- Primary Prevention
 - Tobacco
 - Nutrition and Weight Status
 - Physical Activity
 - Ultraviolet Light Exposure
 - Ionizing Radiation Exposure
 - HPV/Cancer Vaccines
- Secondary Prevention: Early Detection
 - Breast
 - Cervical
 - Colorectal
 - Prostate
 - Melanoma
- Tertiary Prevention: Treatment
 - Genomics
 - Patient Navigation
 - Clinical trials
- Survivorship
 - Follow-up Care
 - Palliative Care
 - Hospice Care
- Health Information Technology (IT)
 - Health Communication and Surveillance
 - Networks for Plan Dissemination

The narrative that introduces each section and subsection covers current prevalence and mortality, and selected activities and programs among Coalition members to decrease cancer incidence and mortality in the state.

Examples are not meant to be exhaustive and the objectives of each section are based on the most current data available. Significant

consideration was given to each objective and strategy to address all population cohorts. Each section includes the following: an overall goal, baseline and target objectives, information sources and strategies. The goal statements reflect long-term aspirations and are meant to guide the direction of Alabama's cancer control activities. Objective statements provide targets to accomplish by 2015. Where applicable, these measures are based on Healthy People 2020 recommendations. Some statements do not include baseline data; in these cases, **ACCCC** will establish these baselines and set appropriate targets to be met by the end of the five-year period.

Objectives are listed by alphanumeric identifiers with the section (TU=Tobacco, NWS=Nutrition and Weight Status, PAF=Physical Activity, UV=Ultraviolet Light, EH=Environmental Health, I=Infectious, C=Cancer (Early Detection), TR=Treatment, S=Survivorship and HC=Health Communications) followed by AL, the years 2011-2015 and the chronological number of that objective. This identification system is designed to align with the Healthy People 2020 system.

Strategies are specific activities designed to accomplish the objectives. There are primary entities and partners that are agencies, organizations, or programs that will have primary responsibility or key involvement for a given activity. Other partners play a supportive role in achieving the given strategy and may be associate members of the **ACCCC**. These partners' mission may not be strictly relevant to cancer prevention and control. Other individuals, organizations and programs that can provide resources for cancer control research are also a major component in the plan. The **ACCCC** has included specific research goals, outcomes and objectives in each section to allow for a greater dialogue between clinical and non-clinical providers, policy makers and influencers and researchers.

Implementation and Priority Setting

The underlying concept behind cancer control is to create and build upon synergy among categorical cancer control programs (True, 2005). Comprehensive Cancer Control (CCC) ensures that surveillance data are used to promote effective strategic implementation in cancer populations. CCC connects diverse partners to address the needs of particular populations. The CCC faces challenges, including sustainability, limited

resources and competition for these resources. Alabama's first priorities are the top cancers that afflict Alabamians, including female breast cancer, colorectal cancer, lung cancer and prostate cancer. The goals of the program also focus on improving treatment outcomes and reducing disparities for disease incidence and mortality. The **ACCCC** uses a logic model (see Figure 4 below) as a framework in the 2011-2015 Plan.

Figure 4:

Alabama Comprehensive Cancer Control Coalition Logic Model

| INPUTS | OUTPUTS | | OUTCOMES | | |
|--|--|---|---|--|--|
| | ACTIVITIES | PARTICIPATION | SHORT | MEDIUM | LONG |
| Coalition Members Stakeholders Partners | Primary Prevention | Promote public and provider awareness of cancer primary prevention and early detection activities | Improve nutrition status, increase physical activity levels | Improve cancer screening rates | Reduce cancer incidence and mortality in Alabama |
| | Secondary Prevention | | | Reduce cancer disparities between non Hispanic whites and other racial/ethnic groups | |
| | Treatment/Clinical Trials | Increase services emphasizing underserved populations to reduce barriers | Decrease tobacco use, reduce radon exposure, reduce UV light exposure | Improve survivor quality of life | |
| | Survivorship | | Improve health communication and technology | | |
| | Health Communication, Technology, Surveillance | | Increase HPV vaccination rates | | |
| | | | Increase access to services | | |
| | | | Improve surveillance | | |

External Factors

1. Resources
2. Economic situation including unemployment, under- and uninsured
3. Geography
4. Cultural beliefs
5. Policy

Evaluation

1. Yearly program monitoring
2. 5 year basis for plan renewal

REFERENCES:

True, S., Kean, T., Nolan, P.A. (2005). In conclusion: the promise of comprehensive cancer control. *Cancer Causes and Control*, 16 (Supp 1), 79-88.

PRIMARY PREVENTION

Our Overall Goal

Alabama cancer cases will decline because of adoption of healthy lifestyle choices and modification of social and cultural risk factors.

In the past, the majority of diseases and illnesses that killed Americans were communicable. Many of these diseases, such as polio, have been eradicated from the United States by implementation of public health programs. During the 21st century, lifestyle changes that address the social and physical environments and healthy behaviors are necessary to prevent and reduce the burden of prevalent chronic diseases, particularly cancer.

The American Cancer Society estimates that cancers that are curable through prevention and early detection will account for half of all new cancer cases diagnosed (ACS, ADPH, 2010).

The overall focus of primary prevention includes risk reduction and sustaining optimal health over the lifespan of all Alabamians. Primary prevention activities include policy, environmental and system changes that promote implementation of evidence-based practices.

In 2009, more than 23,000 Alabamians, or 65 per day, received a diagnosis of cancer, and an estimated 10,000 Alabamians, or 27 per day,

died from cancer. To decrease cancer incidence and mortality rates, Alabamians are encouraged to modify their lifestyle choices – to quit using tobacco, eat better, get more physical exercise and avoid overexposure to ultraviolet light (ACS, ADPH, 2010).

The American Cancer Society recommends that all individuals take control of their health and reduce their cancer risk by:

- Avoiding tobacco.
- Maintaining a healthy weight.
- Engaging in regular physical activity.
- Eating healthy with plenty of fruits and vegetables.
- Limiting how much alcohol they drink (if they drink at all).
- Using sunscreen or covering up.
- Knowing themselves, their family history and their risks.
- Having regular check-ups and cancer screening tests.

REFERENCES:

ACS, ADPH. *Alabama Cancer Facts & Figures 2010*. (2010). Montgomery, AL: American Cancer Society.

Tobacco

NATIONAL TRENDS

The reduction in cigarette smoking in the United States has made one of the largest impacts in primary prevention of cancer during the last 50 years (Gapstur, 2010). Each year, smoking results in an estimated 443,000 premature deaths nationally. Of these deaths, 49,400 (or 11 percent) occur in nonsmokers as a result of exposure to secondhand smoke (ACS, ADPH, 2010).

ALABAMA TRENDS

The ACS estimated that 10,150 Alabamians would die from cancer in 2010. Of those, 3,190 deaths, or one in every three cancer deaths would result from lung cancer. The most common cause of lung cancer is cigarette, cigar or pipe smoking. According to the 2009 Alabama Behavioral Risk Factor Surveillance System (BRFSS), 22.5 percent of Alabamians reported being current smokers, which is the 8th highest percentage in the nation (CDC, 2009).

Approximately 18.6 percent of high school students smoke (14.8 percent of girls and 22 percent of boys) (CDC, 2010a). The good news is that fewer Alabama high school students are lighting up. The ADPH 2010 Youth Tobacco Survey showed a 15.8 percent decrease in teen smoking compared with 2008. The 2010 survey was given in 41 public high schools, and the results are based on a sampling of nearly 1,400 students who turned in usable questionnaires. The proportion of high school males using smokeless tobacco was 11.7 percent.

DISPARITIES

Smoking prevalence varies by race and ethnicity, age, gender and educational attainment. Alabama has higher rates of current smokers than the national average (22.5 versus 17.9 percent in 2009). Alabamians ages 18 to 24 have a higher prevalence of smoking than other age groups 18 and older (29.1). Of adults in Alabama who currently smoke, a higher percentage of men smoke (25.6 percent) (Table 4). White males in Alabama are more likely to smoke than non-white males and all females. Prevalence of smoking decreases when educational attainment increases (Table 5). Approximately 12.0 percent of pregnant women are current smokers (ACS, ADPH, 2010).

Table 4:

Prevalence of Smoking Among Alabama Adults

| GENDER | | YES | NO |
|--------|----|-------------|-------------|
| Male | % | 25.6 | 74.3 |
| | CI | (22.9 28.4) | (71.5 77.1) |
| | n | 486 | 1609 |
| Female | % | 19.6 | 80.3 |
| | CI | (17.9 21.4) | (78.6 82.0) |
| | n | 796 | 3865 |

Source: 2009 BRFSS

Table 5:

Education Level for Alabama Adults Who Are Current Smokers

| EDUCATION | | YES | NO |
|------------------|----|-------------|-------------|
| Less than H.S. | % | 25.6 | 74.3 |
| | CI | (22.9 28.4) | (71.5 77.1) |
| | n | 486 | 1609 |
| H.S. or G.E.D. | % | 19.6 | 80.3 |
| | CI | (17.9 21.4) | (78.6 82.0) |
| | n | 796 | 3865 |
| Some post-H.S. | % | 19.6 | 80.3 |
| | CI | (17.9 21.4) | (78.6 82.0) |
| | n | 796 | 3865 |
| College graduate | % | 19.6 | 80.3 |
| | CI | (17.9 21.4) | (78.6 82.0) |
| | n | 796 | 3865 |

Source: 2009 BRFSS

Among males in Alabama, black males have a higher lung cancer mortality rate than white males with a rate of 100.0 versus 92.4. Among females in Alabama, white females have a higher lung cancer mortality rate than black females with a rate of 42.9 versus 31.6 (rates are per 100,000 age adjusted to the 2000 standard million) (ACS, ADPH, 2010). Eliminating tobacco-related health disparities poses a great challenge to Alabama and the nation.

SECOND-HAND SMOKE

There is currently no statewide law effectively protecting people in Alabama from second-hand smoke exposure. Workplace exposure to second-hand smoke is higher in Alabama than in the nation on average. According to the CDC, the percentage of adults working indoors in Alabama who reported anyone smoking in their work area within the preceding two weeks was 8.8 percent. The United States average was 7.3 percent (CDC, 2010b). In 1997, some 289,110 children in Alabama were exposed to second-hand smoke in the home (CDC, 1997).

EXAMPLES OF CURRENT ACTIVITIES TO REDUCE TOBACCO USE AND EXPOSURE

In June 2007 the ADPH Tobacco Prevention and Control Branch (TPCB) convened a workshop to develop a strategic plan for addressing disparities related to tobacco. Early goals included the development of a database for those working at the state and local levels with effective tobacco-related social marketing resource materials targeting populations disparately affected by tobacco in Alabama. Future goals include the training of community advocates about the importance of educating the community about tobacco issues.

The **ADPH TPCB** funds a tobacco control program in each of the state's 11 public health areas. The TPCB employs 11 Area Tobacco Control Coordinators who provide technical assistance to 17 local tobacco control coalitions. The Course of Study developed by Alabama State Department of Education requires that students be taught the risks of tobacco use and exposure to secondhand smoke.

The Food and Drug Administration has contracted with the ADPH TPCB to enforce regulations promulgated under the Family Smoking Prevention and Tobacco Control Act. In partnership with the Alcoholic Beverage Control Board, Area Tobacco Control Coordinators will inspect tobacco retail locations throughout the state to document compliance with the new laws regulating the sale of tobacco. The purpose of the program is to reduce illegal sales to minors and to ensure banned products, such as candy-flavored cigarettes, are not sold.

The **Alabama Tobacco Quitline** is available to all Alabamians free of charge. The 1-800-QUIT-NOW toll-free line offers cessation counseling with a Master's prepared health counselor, an

individualized quit plan and up to four free weeks of nicotine replacement therapy patches if enrolled in counseling and medically eligible. In June 2010, the ADPH TPCB launched an online Quitline at alabamquitnow.com. The site offers the same services as the telephone Quitline. In addition, users can chat with others who are quitting. Alabama Quitline data show that, with counseling, users are twice as likely to quit tobacco use for good. Counselors are available from 8 a.m. to 8 p.m., Monday through Friday and from 9 a.m. to 5:30 p.m. on Saturday. Messages can be left 24 hours a day to receive more information or a call back. Quitline data also show that Alabama ranks 35th among all states for percentage of smokers who call their Quitline (1.8 percent).

The ADPH's **Youth Tobacco Cessation Program** focuses on reducing the infant mortality rate among pregnant teens who smoke. Its purpose is to address tobacco prevention and cessation among teenagers, with an emphasis on the prenatal teenage population.

In 2008, Area Tobacco Control Coordinators collected 120 worksite tobacco policies. 63 percent of these worksite policies included 100 percent smoke-free buildings. The Coordinators planned to continue to work with the 37 percent of worksites with weaker policies. They also planned to work to implement smoke-free policies in these worksites and to help strengthen weak tobacco policies (ADPH, 2008).

The **Tobacco Mini-Grant Program** is funded by the Tobacco Master Settlement Agreement. Grants are distributed among approximately 18 local organizations such as prevention agencies, school boards, extension services and other non-profit organizations. These grants fund activities that focus on youth education, community advocacy and tobacco prevention and cessation. The purpose of this program is to reduce youth tobacco prevalence rates and increase awareness about the dangers of secondhand smoke.

The **Coalition for a Tobacco Free Alabama** (TFA) is the only statewide coalition that conducts tobacco control advocacy conferences, seminars and related activities in Alabama. In 1986 former State Health Officer, Dr. Ira Myers, formed the 501 (c) 3 organization. Through time TFA has evolved into a multi-partner organization whose primary goal is to achieve a tobacco-free society. The Coalition is comprised of 104 members from throughout the state of Alabama. TFA has previously

Tobacco continued

coordinated and served as host for two statewide advocacy and youth conferences and remains committed to continuing to educate the citizens of Alabama on the importance of realizing a smoke-free Alabama. TFA has dealt with Tobacco issues and working with legislative issues. TFA is currently endorsing a statewide comprehensive clean air bill, which will make it illegal to smoke indoors.

The ACS works with Health Plans, Quality Improvement organizations, physician organizations, clinics and worksites to limit the impact of tobacco on the health of Alabamians. The ACS works with these organizations to create institutional policies to limit the use of tobacco and provide benefits to support cessation efforts. The ACS has partnered with Blue Cross Blue Shield of Alabama (BCBSAL), the largest health plan in the state, to provide access to quality cessation tools, including the ACS Quit For Life program and cessation benefits. BCBSAL also provides a conduit for policy consultation and tobacco tool kit distribution. In a collaborative effort, educational opportunities have been offered to increase worksite and constituent knowledge in the area of tobacco prevention. The ACS has also provided education and tools to providers and clinics through its *A Powerful Team* (APT) program. The APT program has found that a large gap exists in physicians' knowledge base on addressing cessation counseling in a clinic setting.

ADVOCACY and FUNDING

In 2007, the CDC updated the recommendations for tobacco control programs. Specific indicators of tobacco control success include an increase in the number of city-level tobacco ordinances. In Alabama, from 2005-2009, 75 municipalities passed ordinances to implement smoke-free policies.

In 2007, Alabama's funding for tobacco control was 3.7 percent of the recommended level. Alabama ranks 44th among the states. Approximately 23 percent of the annual revenue generated from state excise taxes and settlement payments would fund Alabama's tobacco control program at the Best Practices recommended amount. Smokers, businesses, nonsmokers and society bear the burden of costs from cigarette use. Increasing state healthcare expenditures have resulted in increased taxes to pay for the cost of state Medicaid and Medicare programs. In addition, many health insurance companies have raised premiums for clients who smoke, based on the excessive costs of healthcare compared to nonsmokers.

The ADPH Strategic Plan for **Eliminating Tobacco-Related Disparities** includes an objective to obtain a commitment of support from policy makers to pass a model smoke-free air policy in Alabama by 2012. The ADPH hopes to increase the excise tax on cigarettes by 2013. By March 2014, ADPH plans to initiate a statewide media campaign to educate the public about secondhand smoke and the benefits of increasing the tobacco excise tax.

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Table 6:

Evidence-Based Interventions to Reduce Tobacco-Related Diseases

| INTERVENTION | RECOMMENDATION |
|---|-----------------------|
| Strategies to Reduce Exposure to Environmental Tobacco Smoke | |
| • Smoking bans and restriction | Recommended |
| • Community education to reduce exposure to ETS in the home | Insufficient Evidence |
| Restricting Minors' Access to Tobacco Products | |
| • Community mobilization with additional interventions | Recommended |
| • Community education about youth access to tobacco products when used alone | Insufficient Evidence |
| • Active enforcement of sales laws directed at retailers when used alone | Insufficient Evidence |
| • Retailer education with reinforcement and information on health consequences when used alone | Insufficient Evidence |
| • Retailer education without enforcement and information on health consequences when used alone | Insufficient Evidence |
| • Retailer education without enforcement when used alone | Insufficient Evidence |
| • Laws directed at minor's purchase, possession, or use of tobacco products when used alone | Insufficient Evidence |
| • Sales laws directed at retailers when used alone | Insufficient Evidence |
| Reducing Tobacco Use Initiation | |
| • Increasing the unit price for tobacco products | Recommended |
| • Mass media education campaigns combined with other interventions | Recommended |
| Increasing Tobacco Use Cessation | |
| • Increasing the unit price for tobacco products | Recommended |
| • Mass media campaigns combined with additional interventions | Recommended |
| • Mass media education: cessation series | Insufficient Evidence |
| • Mass media education: cessation contests | Insufficient Evidence |
| • Provider reminder systems when used alone | Recommended |
| • Provider reminder systems with provider education | Recommended |
| • Provider education when used alone | Insufficient Evidence |
| • Provider assessment and feedback | Insufficient Evidence |
| • Reducing client out of pocket cost for cessation therapies | Recommended |
| • Multi component interventions that include telephone support | Recommended |

<http://www.thecommunityguide.org/tobacco> Last updated August 31, 2010.

Tobacco

Goal: *Consistently decrease tobacco use until Alabamians abstain from using tobacco products.*

ADULT TOBACCO USE

TU-AL-2011-2015-1

By 2020, decrease from 22.5% to 18.0% the proportion of Alabamians age 18 and older who smoke cigarettes.

- Baseline: 22.5%
- Target: 18.0%
- Information source: 2009 BRFSS

TU-AL-2011-2015-2

Increase the proportion of adult smokers who report trying to quit for 1 day or longer during the past 12 months from 62.4% to 67.0%.

- Baseline: 62.4%
 - Target: 67.0%
 - Information source: 2009 BRFSS
- Strategies:
- Increase awareness of toll free Quitlines among health care professional and adult smokers.
 - Provide training for community based outreach programs about evidence based smoking cessation programs and information on negative health effects of tobacco use and exposure with an emphasis on underserved populations.

YOUTH TOBACCO USE

TU-AL-2011-2015-3

By 2015, decrease from 22.1% to 16.0% the proportion of Alabama youths in grades 9-12 who smoke cigarettes.

- Baseline: 22.1%
 - Target: 16.0%
 - Information source: 2008 High School ALYTS
- Strategies:
- Implement campaigns to inform youths about the risk of tobacco use and polytobacco use.

TU-AL-2011-2015-4

By 2015, decrease from 10.9% to 1.0% the proportion of Alabama youths in grades 9-12 who use spit tobacco.

- Baseline: 10.9%
 - Target: 1.0%
 - Information source: 2008 High School ALYTS
- Strategies:
- Implement campaigns to inform youths about the risk of tobacco use and polytobacco use.

TU-AL-2011-2015-5

By 2015, decrease from 8.0% to 1.0% the proportion of Alabama youths in grades 6-8 who use spit tobacco.

- Baseline: 8.0%
 - Target: 1.0%
 - Information source: 2004 Middle School ALYTS
- Strategies:
- Implement campaigns to inform youths about the risk of tobacco use and polytobacco use.

TU-AL-2011-2015-6

Advocate for policy changes and legislative efforts such as a "user fee" that will reduce tobacco use and exposure

- Data source: ADPH tobacco legislative tracking system.
- Strategies:
- Provide information and serve as a resource for state and local decision makers regarding tobacco pattern use, policy issues and tobacco-related cancers to encourage state and local clean air laws.
 - Educate employer/ payers and insurers about the health benefits or reimbursement for smoking cessation counseling and medication aids.

TU-AL-2011-2015-7

Increase the enforcement of laws concerning tobacco product sales to minors.

- Baseline: To be determined
 - Target: To be determined
 - Information source: SYNAR Report
- Strategies:
- Educate merchants about tobacco sales laws and consequences of noncompliance.
 - Educate clerks who sell tobacco products about tobacco sales laws.

TU-AL-2011-2015-8

Increase awareness about risks of tobacco use and exposure among youths in grades 6-12.

- Baseline: 42.8%
 - Target: 75.0%
 - Information source: 42.8% in 2008 exposed to school based programs (ALYTS, YRBS)
- Strategies:
- Develop and implement a Public Service Announcement campaign to inform youths about risks of tobacco use, including spit tobacco.
 - Include non-smoking education in the curriculum in 100% of all schools.

Nutrition and Weight Status

NATIONAL TRENDS

Epidemiologic studies have suggested that obesity is associated with increased risk of several cancers, although the associations may be due to some shared risk factors such as aging, diet and physical activity. Diabetes (primarily Type 2) has been associated with an increased risk of some cancers also and possible mechanisms include hyperinsulinemia, hyperglycemia and inflammation (Giovannucci, 2010). It is uncertain at which stage many nutritional factors would act on the carcinogenic process (Miller, 2010).

Throughout the past two decades, obesity rates in the U.S. and Alabama have risen to epidemic proportions. Despite goals to decrease obesity rates among Americans, the rates have steadily increased. Whether an individual is classified as normal, overweight or obese is based on the Body Mass Index (BMI) chart. BMI is a measure of adiposity derived from height and weight and is roughly correlated with body fat. Adults of healthy weight have a BMI of 18.5 to 24.9. Overweight adults have a BMI of 25 to 29.9, while obese adults have a BMI of 30 or above. For children and teens 2 to 20 years old, BMI is age and gender specific to adjust for changes in body fat as children grow. Overweight and obesity result from an energy imbalance over an extended period of time. While genetic predisposition is a contributing factor in obesity, predominant lifestyle choices of unhealthy eating patterns and physical inactivity are leading contributors to this epidemic. A recent review found that the macro-environment (food production and manufacturing, urban/rural development, transportation and health systems) is also important to weight status. Further research into these factors is warranted (Kirk, 2009).

Other factors that may impact the obesogenic environment include food deserts (areas with limited access to affordable and nutritious food). Overall, a recent report showed that a small percentage of consumers are constrained in their ability to access affordable nutritious food because they live far from a supermarket or large grocery store and do not have easy access to transportation (Ver Ploeg, 2009).

A diet high in fruits and vegetables can play an important role in weight management (Grimm, 2010). Previous Healthy People targets include

increasing the proportion of people ≥ 2 years of age who consume two or more servings of fruit each day to 75 percent and increasing to 50 percent those who consume three or more servings of vegetables each day. Overall, the proportion of adults who met the fruit target declined significantly, from 34.4 percent in 2000 to 32.5 percent in 2009. However, no significant change was observed in meeting the vegetable target (Grimm, 2010).

In 2009, overall self-reported obesity was 26.7 percent in the United States (Grimm, 2010) and no state met the Healthy People 2010 obesity target of 15.0 percent.

ALABAMA TRENDS

Alabama ranks 7th in obesity among all the states, and the proportion of the population that was obese from 2007-2009 (3 year average) was 31.6 percent (CDC, 2009). When those overweight were added to the obese, the percentage of the unhealthy population increased to 67.6 percent. The proportion of obese is greater among blacks than whites (Table 7).

Table 7:

Level of Obesity for Alabama Adults

| RACE | | BMI \leq 24.9 | BMI 25.0-29.9 | BMI \geq 30.0 |
|-------|----|--------------------|------------------|--------------------|
| White | % | 33.8 | 37.8 | 28.8 |
| | CI | (31.7 35.9) | (35.6 39.9) | (26.3 30.3) |
| | n | 1558 | 1644 | 1285 |
| Black | % | 25.7 | 33.0 | 41.1 |
| | CI | (21.6 29.9) | (29.4 36.6) | (37.2 45.1) |
| | n | 330 | 572 | 815 |

Source: 2009 BRFSS

Obesity rates among children and adolescents are skyrocketing. Rates have doubled among children and tripled among teens in the U.S. since 1990. The 2009 YRBS reported that the percentage of overweight Alabama high school students was 17.5 percent and the percentage of obese high school students was 13.5 percent. A survey of 7,190 third graders in Alabama public schools in 2006-2007 found that 18 percent were overweight and 25 percent were obese. Among Alabama youth, most ate fruits and vegetables

Nutrition and Weight Status continued

less than five times per day (83.7 percent in 2009) and many did not exercise to lose weight or keep from gaining weight (43.1 percent) (CDC, 2009). The health consequences of obesity are serious: today more youth are diabetic, more have elevated blood pressure and more suffer the psycho-social effects of being overweight or obese than ever before. According to the 2007 National Survey of Children's Health (NSCH), obesity rates for children ages 10–17, defined as BMI greater than the 95th percentile for age group, ranged from a low of 9.6 percent in Oregon to a high of 21.9 percent in Mississippi. The NSCH study is based on a survey of parents in each state. Nine of the 10 states with the highest rates of obese children are in the South, as are nine out of the 10 states with the highest rates of poverty (RWJF, 2010).

DISPARITIES

Adult obesity rates for blacks and Latinos are higher than those for whites in nearly every state. Adult obesity rates for blacks are at or above 30 percent in 43 states and D.C. In nine states, the rates exceed 40 percent for blacks. For Latinos, adult obesity rates are at or above 30 percent in 19 states (RWJF, 2010). Nearly 45 percent of children living in poverty in 2007 were classified as overweight or obese, compared with 22.2 percent of children living in households with incomes four times the poverty level. In addition, rates of obesity are higher for black and Latino children than the overall population of children in the U.S.

EXAMPLES OF CURRENT ACTIVITIES TO REDUCE OBESITY

The problem of obesity is multi-factorial, and no one strategy or program is sufficient to lower obesity in Alabama. The best approaches incorporate multiple settings including schools, worksites and communities.

Schools

Alabama has stricter nutritional standards than the U.S. Department of Agriculture (USDA) requires for school lunches, breakfasts and snacks. Alabama also has nutritional standards for competitive foods. Competitive foods are defined as any foods and beverages, regardless of their nutritional value, that are sold at school, but outside of the USDA school meals program.

Vending Machines in Schools Traditionally, vending machines contain sugar and calorie laden soft drinks, candy and chips. However, this should not be the case in Alabama public schools. In July 2005, a resolution passed by the Alabama State Board of Education established guidelines for the contents of vending machines in schools. Since then, schools have been making changes in food and beverages – both in type of selections and portion sizes. The guidelines provide recommendations for healthy beverages and snacks in vending machines.

Action for Healthy Kids is the nation's leading nonprofit and largest volunteer network fighting childhood obesity and undernourishment by partnering with schools to improve nutrition and physical activity to help our kids learn to eat right, be active every day and be ready to learn. The Alabama Action for Healthy Kids Team was involved in many activities including a Healthy Lifestyles Summit, Scale Back Alabama Schools and Fuel Up to Play 60. They have created a guide series to help schools promote a healthy school environment. The series can be found at www.adph.org/schoolhealth.

The **Alliance for a Healthier Generation** promotes the Healthy School Program where they increase opportunities for students to exercise and play, put healthy foods and beverages in vending machines and cafeterias and provide resources for teachers and staff to be healthy role models. Schools meeting program requirements receive recognition as a Gold, Silver or Bronze level school.

Worksites

ADPH and the Nutrition and Physical Activity Division (NPA) are partnering with state agencies to increase access to healthy foods by improving items in vending machines in state offices. A healthy vending machine policy is being piloted in agencies to reduce or eliminate less nutritious foods in vending machines.

Scale Back Alabama, a statewide program sponsored by the Alabama Hospital Association, Barber's Dairies, Blue Cross Blue Shield of Alabama and ADPH, is designed to encourage Alabamians to become healthier by losing weight and increasing exercise. This program is an example of a work site wellness program that has been expanded into community sites. This semi-internet based

competition begins in January to coincide with “New Year’s Resolutions” and continues for ten weeks. Over the last five years, Scale Back Alabama participants have lost more than 615,929 pounds.

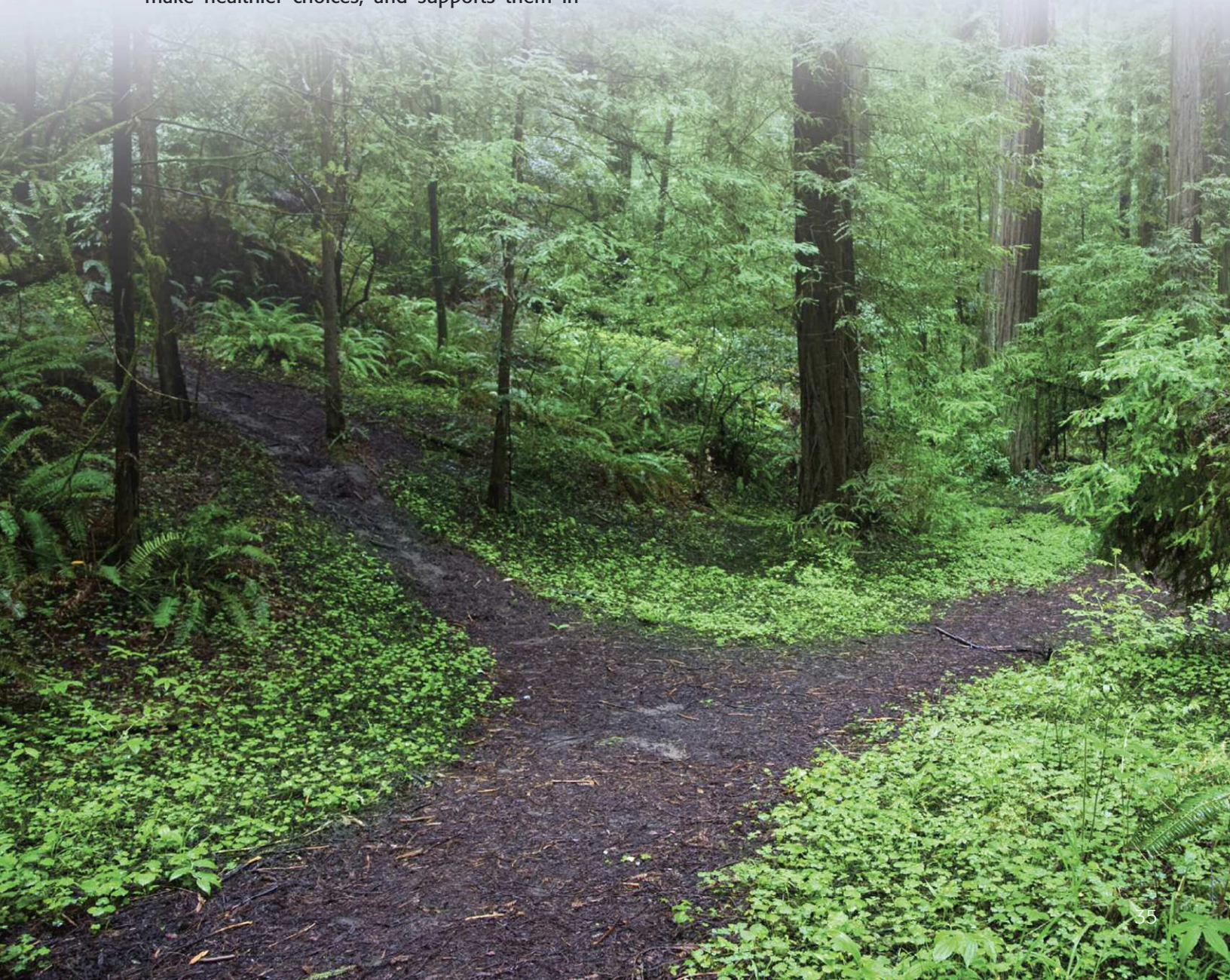
The American Cancer Society provides resources, tools and solution sets to worksites to impact obesity in the state of Alabama. These include solution sets on vending machines, work-site cafeteria planning, meeting meals planning and the Active For Life program. These solution sets make policy change recommendations as well as program implementation recommendations.

Recently the ACS launched a program called Choose You, a movement that encourages women to put their own health first in the fight against cancer. The movement challenges women to make healthier choices, and supports them in

their commitment to eat right, get active, quit smoking and get regular health checks.

In addition, the ACS promotes *The CEO Cancer Gold Standard*,™ developed by the CEO Roundtable on Cancer to assist organizations in reducing the burden of cancer. Organizations that adopt the Gold Standard demonstrate a commitment to improving the health and lives of their employees and their family members by maintaining a culture that fosters healthy lifestyles and provides support when a diagnosis of cancer becomes a reality. In addition, they offer benefits and programs that lower the risk of cancer, detect it earlier and provide access to high-quality treatment, including clinical trials (L. Blanton, Personal Communication, May 10, 2011).

(continued on next page)



Communities

The NPA, partnered with the **Obesity Task Force**, works to address policy, environmental changes and system changes. Examples of projects completed include the Balancing InTake and Expenditure Project. Funds were provided to five community groups to address obesity through nutrition or physical activity. Projects include increasing walking groups, developing advocacy materials for childhood obesity, creating a local walking path, developing a manual for churches to use for faith based health interventions and creating a community garden using high school students and local restaurants.

Community assessments, including health aspects, are completed through Alabama Communities of Excellence. A series of handouts were developed and provided to elected officials and community leaders.

The Healthy Communities Branch of the ADPH is working with communities to promote healthy lifestyles and prevent chronic disease through policy, systems and environmental changes. Communities may contact the state to receive training, technical assistance, or consultation regarding policy, systems and environmental changes to help make their community healthier.

In Jefferson County, the **Healthy Kids, Healthy Communities** project addresses childhood obesity by expanding partnerships to create a climate for change within the community by building public will and support, improving access to healthy food, increasing physical activity through the built environment and improving health standards in childcare and after-school programs.

ADVOCACY

Intensified efforts to address obesity will be supported by several nationwide initiatives including the Let's Move campaign and the Patient Protection and Affordable Care Act (Let's Move, 2010). New programs will expand the commitment to community-based prevention programs initiated under the American Recovery and Reinvestment Act through new provisions in the health reform law, such as Community Transformation grants and the National Diabetes Prevention Program. Continued investment is needed in research and evaluation on nutrition, physical activity, obesity and obesity-related health outcomes and associated interventions.

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Table 8:

Evidence-Based Interventions to Prevent Obesity

| INTERVENTION | RECOMMENDATION |
|--|-----------------------|
| Interventions to reduce screen time | |
| • Behavioral interventions to reduce screen time | Recommended |
| • Mass media interventions to reduce screen time | Insufficient Evidence |
| Technology supported interventions (e.g. computer or web application) | |
| • Multi component coaching or counseling interventions to reduce weight | Recommended |
| • Multi component coaching or counseling to maintain weight loss | Recommended |
| Obesity Prevention Provider-oriented Interventions | |
| • Provider education | Insufficient Evidence |
| • Provider feedback | Insufficient Evidence |
| • Provider reminders | Insufficient Evidence |
| • Provider education with a client intervention | Insufficient Evidence |
| • Multi component interventions | Insufficient Evidence |
| • Multi component interventions with client interventions | Insufficient Evidence |
| Obesity Prevention: Interventions in Community Settings | |
| • Behavioral interventions to reduce screen time | Recommended |
| • Mass media interventions to reduce screen time | Insufficient Evidence |
| • Multi component counseling or coaching to effect weight loss | Recommended |
| • Multi component counseling or coaching to maintain weight loss | Recommended |
| • Worksite programs to control overweight and obesity | Recommended |
| • School based programs to prevent overweight and obesity | Insufficient Evidence |

<http://www.thecommunityguide.org> Last updated September 14, 2010.

Nutrition and Weight Status

Goal: *Decrease the cancer risk of Alabamians by having them improve their health status through a healthy diet and maintaining a proper weight.*

ADULTS

NWS-AL-2011-2015-1

By 2015, decrease from 36.5% to 34.0% the proportion of Alabama adults age 18 and older who report being overweight based on BMI.

- Baseline: 36.5%
- Target: 34.0%
- Information source: 2009 BRFSS
- Strategies:
 - Encourage worksites to participate in nutrition and physical activity programs, such as Scale Back Alabama.
 - Encourage worksites to offer healthy vending machine choices and weight management programs to employees.

NWS-AL-2011-2015-2

By 2015, decrease from 31.6% to 30.0% the proportion of Alabama adults age 18 and older who report being obese, based on BMI.

- Baseline: 31.6%
- Target: 30.0%
- Information source: 2009 BRFSS
- Strategies:
 - Encourage worksites to participate in nutrition and physical activity programs, such as Scale Back Alabama.
 - Encourage worksites to offer healthy vending machine choices and weight management programs to employees.

NWS-AL-2011-2015-3

By 2015, increase from 20.3% to 26.0% the proportion of Alabama adults age 18 and older who report eating 5 or more servings of fruits and vegetables every day during the past 7 days.

- Baseline: 20.3%
- Target: 26.0%
- Information source: 2009 BRFSS
- Strategies:
 - Provide Fruits & Veggies – More Matters nutrition and weight management education to the public through existing networks and systems.
 - Provide Fruits & Veggies – More Matters nutrition and weight management education to health-care professionals through continuing education programs.
 - Work with the Alabama Communities of Excellence (ACE) to encourage local communities to make environmental changes, such as farmer's markets to address lack of access to produce.
 - Improve access to fresh fruits and vegetables in communities designated as food deserts.
 - Encourage community gardens throughout the state.

YOUTH

NWS-AL-2011-2015-4

By 2015, decrease from 17.5% to 12.0% the proportion of Alabama youths in grades 9-12 who report being overweight.

- Baseline: 17.5%
- Target: 12.0%
- Information source: 2009 YRBS
- Strategies:
 - Support and promote the development and implementation of community-wide campaigns that focus on limiting total television screen time for children to two hours or less per day.
 - Work with the State Department of Education to review school wellness policies and implement coordinated school health sections.

NWS-AL-2011-2015-5

By 2015, increase from 16.3% to 18.0% the proportion of Alabama youths in grades 9-12 who report eating 5 or more servings of fruits and vegetables every day during the past 7 days.

- Baseline: 16.3%
- Target: 18.0%
- Information source: 2009 YRBS
- Strategies:
 - Provide Fruits & Veggies – More Matters nutrition and weight management education through K-12 school systems.
 - Encourage schools to promote healthy food and beverage choices, including vending machines in school.
 - Promote the activities of organizations, such as Healthy School Alliance and Parent Teachers Associations/Organizations, to improve school nutrition.

Physical Activity

NATIONAL TRENDS

The new Physical Activity Guidelines for Americans reviewed the strength of the evidence for the health benefits of physical activity (HHS, 2009). Strong evidence exists for a lower risk of early death, heart disease, stroke, Type 2 diabetes, high blood pressure, adverse blood lipid profile, metabolic syndrome and colon and breast cancers in physically active adults. There was also strong evidence for: prevention of weight gain, weight loss when combined with diet, improved cardio-respiratory and muscular fitness, prevention of falls, reduced depression and better cognitive function (in older adults). There was moderate to strong evidence of better functional health for older adults and reduced abdominal obesity. There was moderate to strong evidence linking physical activity and weight maintenance after weight loss, lower risk of hip fracture, increased bone density, improved sleep quality and lower risk of lung and endometrial cancers. In children and adolescents there was strong evidence of improved cardiorespiratory endurance and muscular fitness, favorable body composition, improved bone health and improved cardiovascular and metabolic health biomarkers. There was moderate evidence of reduced symptoms of anxiety and depression from physical activity.

The basic guidelines of activity for adults are two hours and 30 minutes (150 minutes) a week of moderate-intensity, or one hour and 15 minutes (75 minutes) a week of vigorous-intensity aerobic physical activity, or an equivalent combination of both. Aerobic activity should be performed in episodes of at least 10 minutes, preferably spread throughout the week. Adults should also perform muscle-strengthening activities that involve all major muscle groups two or more days per week.

The guidelines for children and adolescents aged 6-17 years recommend one hour (60 minutes) or more of physical activity every day. As part of their daily physical activity, children and adolescents should do vigorous-intensity activity at least three days per week. They also should do muscle-strengthening and bone-strengthening activity at least 3 days per week. To increase physical activity, children need safe routes to walk and ride bikes to school, parks, playgrounds and community centers where they can play and be active after school and sports, dance or fitness programs that are exciting and challenging to keep them engaged.

In Alabama, over half of adults do not meet the current recommended activity guidelines. The latest information shows that activity among American children, adolescents and adults remains relatively low, and little progress has been made in increasing levels of physical activity among Americans. Southern states dominate the lowest rates of physical activity.

ALABAMA TRENDS

Among Alabama youth, most were not physically active for 60 minutes per day six days per week (81 percent) and most did not attend physical education class daily (68 percent). Over 1/3 watched television more than three hours/day (38 percent) and only 22 percent of youths participated in any type of physical activity for 60 minutes per day any day. For 8-18 year-olds, an average of 7½ hours are devoted to using entertainment media including TV, computers, video games, cell phones and movies in a typical day (CDC, 2009b).

DISPARITIES

In Alabama, the percentage of adults who participated in 30 or more minutes of moderate physical activity five or more days per week, or vigorous activity for 20 minutes three or more days per week was 49.1 percent (CDC, 2009a). Also, black adults are less likely than white adults to be physically active (Table 9).

Table 9:

Alabama Adults with 30 or More Minutes of Moderate Physical Activity Five or More Days per Week, or Vigorous Activity for 20 Minutes Three or More Days per Week

| RACE | | NO | YES |
|-------|----|-------------|-------------|
| White | % | 57.8 | 42.2 |
| | CI | (55.6 60.0) | (40.0 44.4) |
| | n | 2616 | 1670 |
| Black | % | 65.3 | 34.7 |
| | CI | (61.2 69.4) | (30.6 38.8) |
| | n | 1174 | 492 |

Source: 2009 BRFSS

Physical Activity continued

EXAMPLES OF CURRENT ACTIVITIES TO INCREASE PHYSICAL ACTIVITY

Schools

To increase levels of physical activity in Alabama's children and improve an obesity related policy, the ADPH **Nutrition and Physical Activity Division** is working on an initiative which supports and institutionalizes improved physical education (PE) within Alabama school systems. The proposed statewide policy initiatives are to require at least 30 minutes of daily, quality PE in grades K-8 by improving the existing policy, helping with implementation and passing a resolution which requires that K-12 students be physically active for at least 50 percent of time spent in PE classes.

Safe Routes to School is a program that enables and encourages children in grades K-8, including those with disabilities, to walk and bicycle to school, makes walking and bicycling to school safer and more appealing and facilitates the planning, development and implementation of projects that will improve highway safety and reduce traffic, fuel consumption and air pollution in the vicinity of schools. The SRTS program allows local communities to submit funding proposals to the **Alabama Department of Transportation** for projects that address these issues.

ADVOCACY

To be effective, physical activity promotion efforts should use an evidence-based approach that is tailored to the needs of the community. The Guide to Community Preventive Services 2010 has reviewed many community-level approaches to promote physical activity, including five strongly recommended strategies. These strategies consider the socio-ecological model to facilitate behavior change.

At the community level, campaigns that distribute physical activity messaging through various media can be combined with activities such as physical activity counseling, community health fairs

and the development of walking trails. Community level programs may need to engage sectors such as parks and recreation, law enforcement, urban planning, transportation and architecture.

At the school level, physical education classes should use a curriculum that increases the amount of time students are active during class.

Approaches that increase the reach of individual-level interventions can also be employed even when they are administered in group settings.

Social marketing can be targeted to enhance social-support networks and include efforts such as organizing a buddy system (two or more people who set regular times to do physical activity together), walking groups and community dances.

At the organizational level, programs can be formed to create or enhance access to places to be physically active. This also includes worksite activity programs that provide access to onsite or offsite fitness rooms, walking breaks, or other opportunities to engage in physical activity. Private and faith-based organizations can support community physical activity initiatives financially or by providing space for programs. Health and fitness facilities and community programs can provide access to exercise programs and equipment for a broad range of people, including older adults and people with disabilities. Local sports organizations can organize road races and events for the public. Senior centers can provide exercise programs for older adults.

Health-care providers can assess, counsel and advise patients on physical activity and how to do it safely. Health-care providers can model healthy behaviors by being physically active themselves.

The evaluation of all activities will be important to track changes in the proportion of the population meeting the Physical Activity Guidelines for Americans 2010. Various partners can take the lead in setting objectives and coordinating activities.

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Table 10:

Evidence-Based Interventions to Promote Physical Activity

| INTERVENTION | RECOMMENDATION |
|---|-----------------------|
| Promoting Physical Activity: Campaigns and Informational Approaches | |
| • Community wide campaigns | Recommended |
| • Mass media campaigns | Insufficient Evidence |
| • Classroom based health education focused on providing information | Insufficient Evidence |
| Promoting Physical Activity: Behavioral and Social Approaches | |
| • Individually adapted health behavior change programs | Recommended |
| • Social support interventions in community settings | Recommended |
| • Family based social support | Insufficient Evidence |
| • Enhanced school based physical education | Recommended |
| • College based physical education and health education | Insufficient Evidence |
| • Classroom based health education to reduce TV viewing and video game playing | Insufficient Evidence |
| Promoting Physical Activity: Environmental and Policy Approaches | |
| • Community scale urban design and land use policies | Recommended |
| • Creation or enhanced access to places for physical activity combined with informational outreach activities | Recommended |
| • Street scale urban design/land use policies | Recommended |
| • Transportation and travel policies and practices | Insufficient Evidence |
| • Point of decision prompts to encourage use of stairs | Recommended |

<http://www.thecommunityguide.org> Last updated June 2, 2010.

Physical Activity

Goal: *Alabamians will decrease their cancer risk by improving their physical fitness.*

ADULTS

PAF-AL-2011-2015-1

By 2015, increase from 69.0% to 75.0% the proportion of Alabama adults age 18 and older who perform any physical activity.

- Baseline: 69.0%
- Target: 75.0%
- Information source: 2008 BRFSS

Strategies:

- Raise public knowledge of the decreased cancer risk due to regular physical activity.
- Encourage local communities to make environmental changes to promote alternative modes of transportation by implementing “complete streets” concepts for safe biking and walking. This will be done by working with the Alabama Communities of Excellence (ACE).
- Encourage worksites to participate in wellness programs that incorporate fitness activities such as Scale Back Alabama.
- Work with the State Obesity Task Force, Alabama Department of Economic and Community Affairs (ADECA), State Parks and Bureau of Tourism to distribute materials statewide on physical activity venues.

YOUTH

PAF-AL-2011-2015-2

Increase the proportion of 9-12th graders in Alabama who report being physically active at least 60 minutes per day on five or more days.

- Baseline: 19.0%
- Target: 25.0%
- Information source: YRBS

Strategies:

- Assist State Department of Education in developing, implementing and evaluating a Quality PE policy.
- Assist State Department of Education in training teachers and staff on quality PE practices.
- Encourage implementation of safe routes to schools.
- Advocate for the adoption of evidence based physical education programs for K-12 students.

PAF-AL-2011-2015-3

By 2015, decrease from 38% to 30% the proportion of Alabama youths in grades 9-12 who report watching television for three or more hours per day.

- Baseline: 38.0%
- Target: 30.0%
- Information source: 2009 YRBS

Strategies:

- Advocate for policies that support physical activity in local communities, such as walking trails, sports fields, bicycle paths and other elements of built environment.
- Promote sports and other evidence-based physical activity programs for adults and youths.
- Coordinate education programs for elected officials and other community leaders regarding the link between cancer and physical activity.

Ultraviolet Light Exposure

NATIONAL TRENDS

Skin cancer is the most commonly diagnosed cancer in the United States. Each year more than 1,000,000 Americans are diagnosed with skin cancer. Skin cancer may be prevented when ultraviolet (UV) light protection measures are used consistently. In 2009, nearly 69,000 new cases of malignant melanoma were diagnosed, and more than 8,600 people died from this disease (ACS, ADPH, 2010). In addition, substantially more than one million Americans were diagnosed with basal and squamous cell skin cancers. Though usually not life-threatening and easily cured in most cases, these lesions must be removed because they can be invasive and disfiguring. Basal cell carcinoma is the most common form of skin cancer and squamous cell carcinoma is the second most common form.

Chronic sun exposure, whether it is from natural light or via sun lamps or tanning beds, is the leading cause of skin cancer. Exposure to UVA and UVB radiation from the sun, sun lamps and tanning beds is the major cause of all three types of skin cancer—melanoma, squamous cell carcinoma and basal cell carcinoma—as well as aging and skin wrinkling. The body of research demonstrating this causal link is extensive. The International Agency for Research on Cancer (IARC) classifies ionizing radiation, solar and UV radiation as Group 1 carcinogens (carcinogenic to humans). In July 2009, IARC also classified UV-emitting tanning devices as a Group 1 carcinogen.

ALABAMA TRENDS

In Alabama the age-adjusted incidence rate of melanoma increased from 19.4 per 100,000 in whites in 2004 to 25.2 per 100,000 in 2008 (Table 11). (Since 2004 the number of dermatology clinics reporting to the ASCR has more than tripled, impacting the incidence rate).

Table 11:

Age adjusted rate of melanoma for whites

| YEAR | RATE |
|------|------|
| 2004 | 19.4 |
| 2005 | 24.3 |
| 2006 | 23.5 |
| 2007 | 24.5 |
| 2008 | 25.2 |

Source: 2009 BRFS

For most Alabamians, sunlight is the main source of UV radiation. According to the National Weather Service, in Alabama in 2010 there were 203 days in which the daily UV index was considered high, very high, or extreme; while only 53 days had a low UV index. For a growing number of people, frequent exposure to artificial sunlight through tanning booths and sun lamps also provides a dangerous source of UV radiation.

DISPARITIES

Melanoma is primarily a disease of white men and women, with rates higher than in other racial groups. However, melanoma does occur in blacks and when it does the prognosis is poorer than in whites. Recently, there has been an increase in melanoma diagnosed in younger ages.

EXAMPLES OF CURRENT ACTIVITIES TO REDUCE ULTRAVIOLET LIGHT EXPOSURE

The **University of South Alabama (USA) Mitchell Cancer Institute (MCI)** in Mobile received a grant from the Community Foundation of South Alabama (CFSA) in 2008. Under this Health Initiative grant, the USA-MCI, in partnership with the CFSA and the local community providers and leaders, conducted 10 health outreach and screening events in an eight county service area of South Alabama. Over 800 individuals participated in these health screening and educational events. As a result of this initiative, the MCI established strong working relationships with area physicians and hospitals in these counties, established information sharing networks and developed a model to further enhance community partnerships aimed at cancer prevention and early detection. These health events focused on skin cancer education and screenings. A surgical oncologist and his staff performed skin cancer screenings and provided one-on-one education to participants about the importance of using sunscreen and avoiding tanning beds, as well as other cancer prevention information. As a result of these health screenings, USA-MCI developed and produced a comprehensive cancer prevention DVD that covers all cancers and emphasizes the importance of taking charge of one's own health, including diet and exercise and avoidance of at risk behaviors such as use of tobacco products and tanning beds.

Ultraviolet Light continued

Additionally, for four years, the **ACCCC** has partnered with **UAB School of Dermatology** and local dermatologists belonging to the **American Academy of Dermatology (AAD)** and the **Women's Dermatological Association** to screen participants at the Professional Golf Association's Senior Masters' Tournament and the Ladies Professional Golf Association Tournaments in Hoover, Mobile and Prattville, reaching 40,000 to 80,000 with skin cancer awareness messages.

As part of an educational effort to prevent skin cancer, the Communication and Design Division of the Alabama Department of Public Health Bureau of Health Promotion and Chronic Disease launched the "Red Is Not Your Color" campaign in 2010. The campaign is designed to raise awareness of the link between sun exposure and skin cancer. The **ACCCC** has added a special section to its website devoted entirely to skin cancer. This section will contain in-depth information on the causes, prevention and treatment of skin cancer and will continue to expand in the future.

In 2010, at home football games at Auburn University and The University of Alabama, the campaign's presence was felt whenever a team moved the ball inside its opponent's 20-yard line (the area known as "the red zone"). At that time an animated "The Red Zone" graphic was displayed on the stadium's video screens, along with a short reminder to apply sunscreen and the Department of Public Health's website address.

The campaign was further supplemented by ad presence in game day programs and fan guides. Representatives were on hand before an early home game at each school to hand out literature, sunglasses, sunscreen and other items. The universities have also made it policy to sell sunscreen at concession stands inside the stadium and announced the day's UV rating during game time radio broadcasts.

"The Red Zone" campaign reaches beyond football games in the fall. Universities have also allowed ADPH representatives to hand out sunscreen and materials at baseball games and spring football games. These evidence-based events have been very successful. A CDC study reports that educating people and handing out sunscreen in recreational settings increases adult awareness of skin cancer and the need to protect themselves from the sun (Glanz, 2005).

The **Alabama Cooperative Extension System (ACES)** continues utilizing its statewide sun safety campaign. Developed for farmers and outdoor workers as well as youth and adults who regularly engage in outdoor activities, the campaign is bolstered by posters, display boards and publications available in all Extension offices as well as an extensive network of feed and farm supply stores, recreation centers, health fairs, libraries and other venues.

TANNING BED USE

According to the AAD (2010), nearly 30 million people tan indoors every year in the U.S. Of these, 2.3 million are teens. National melanoma rates among young women have soared by 50 percent since the 1980s, a trend paralleled by a rise in the use of tanning salons. The World Health Organization (WHO), the American Medical Association (AMA) and the AAD have called for a ban on ALL indoor tanning by minors. Presently, only 31 states and four counties in the U.S. have any restrictions on a minor's use of indoor tanning parlors, and even in those states, typically all that is required is a signed permission slip for those under the age of 14. Indoor tanning is a booming business with estimated revenues of more than \$5 billion a year. A 2005 survey by the AAD showed that 92 percent of respondents knew that a sun tan was dangerous, but 65 percent felt they looked better when they had a tan. Almost 30 million Americans each year and more than one million per day visit tanning salons. White women ages 16 to 49 are the most common visitors to tanning salons, and 25 percent of teens have used tanning salons more than three times.

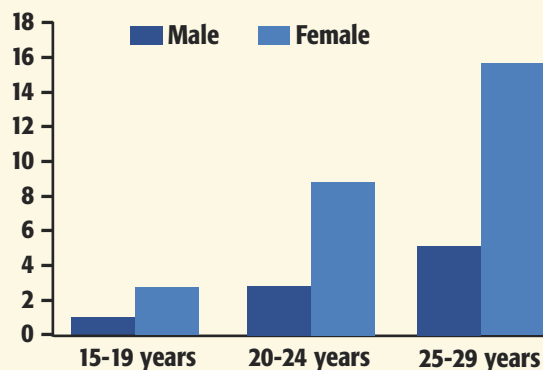
Researchers from the ACS's Surveillance and Health Policy Research department found that teens are still frequenting tanning beds, despite laws restricting tanning bed use in several states. And many are getting burned while doing so, potentially raising their risk of skin cancer later in life. A study, published in *Cancer* by Vilma E. Cokkinides, PhD. et al. (2009), surveyed teens aged 11-18 and their parents in 1998 and again in 2004 about their tanning bed use. They found that the rate of tanning bed use stayed about the same (10 percent compared to 11 percent) despite new laws in many states requiring parental

permission. The authors concluded that there is a need for more research into what strategies would be more effective in discouraging tanning bed usage.

It is unknown how many individuals use indoor tanning beds in Alabama. Only a business license is required for a tanning bed operation, and the method of handling those licenses makes it impossible to determine the number issued for tanning purposes in the state. We have no laws that restrict access to tanning salons by age group, length, or frequency of tanning. The use of tanning beds is completely unregulated and unrestricted. The ADPH **Department of Radiation** inspects the industry for improper UV admittance when reported. Jefferson County issues permits, but no other regulatory actions are known in the state. Alabama melanoma rates for females exceed males for three different youth age groups, with the largest gap for women aged 20 to 24 years. Female rates are 214 times higher than males in the 20 to 24 age group and 180 times higher than males in the 25 to 29 age group. Both older age groups show an increasing gap between young men and women compared to teens (Figure 5). This trend is completely reversed for the total melanoma age-adjusted incidence rate in Alabama with the male rate (21.0) exceeding the female rate (12.6). Rates are per 100,000,

Figure 5:

Age Specific Cancer Incidence Rates for Melanoma in Alabama 2004-2008 by Sex



Data provided by the Alabama Statewide Cancer Registry.

age adjusted to the 2000 Standard Million. Education about sun safety and tanning beds is extremely important for the health of Alabama youth.

In July 2009 the IARC elevated tanning devices to the highest cancer risk category (Group 1, Carcinogenic to Humans) (IARC, 2010). Further, a recent study by D. Lazovich (2010) found that persons who had ever used an indoor tanning device were 75 percent more likely to have developed melanoma.

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ADVOCACY

In addition to being the most common form of cancer in the United States, skin cancer is also the most preventable. A substantial percentage of lifetime sun exposure occurs before the age of 20, and childhood sunburns are known to dramatically increase the chances of developing skin cancer later in life. Yet, despite the fact that the link between sun exposure and skin cancer is widely known, many individuals (particularly young individuals) fail to engage in adequate protective behavior. Providing shade protection at schools and during athletic training and events should be widely emphasized.

In order to facilitate the adoption of effective preventive strategies, we must continue the push to educate the public on the effectiveness and necessity of such strategies. Because early sun exposure is known to have lasting, lifetime effects, special emphasis will be placed on educating children and their parents, teachers and coaches.

Tanning facilities continue to be an area of concern in Alabama, as inspections of these facilities are not mandated statewide. Currently in Alabama there are no laws that restrict minors from using

tanning beds or the frequency in which minors use these beds, and there is very little information regarding the number of tanning bed facilities or privately owned beds throughout the state. One county, Jefferson, does require evaluation of its tanning facilities once a year, grading those facilities on cleanliness and operational procedures. Jefferson County also requires facilities to post warning signs about the risks of tanning.

Tanning beds are inspected by X-Ray inspectors and their requirements include compliance with Food and Drug Administration regulations, presence of an operator when tanning equipment is in use and visibility of inspection results for consumers.

Changes to the industry should include:

- State regulations setting age limits on tanning bed use (allowed age of 18).
- Regulations warning consumers about tanning beds and the risk of skin cancer.
- State level tanning bed inspections.
- Registration or tanning bed license for beds being used commercially.

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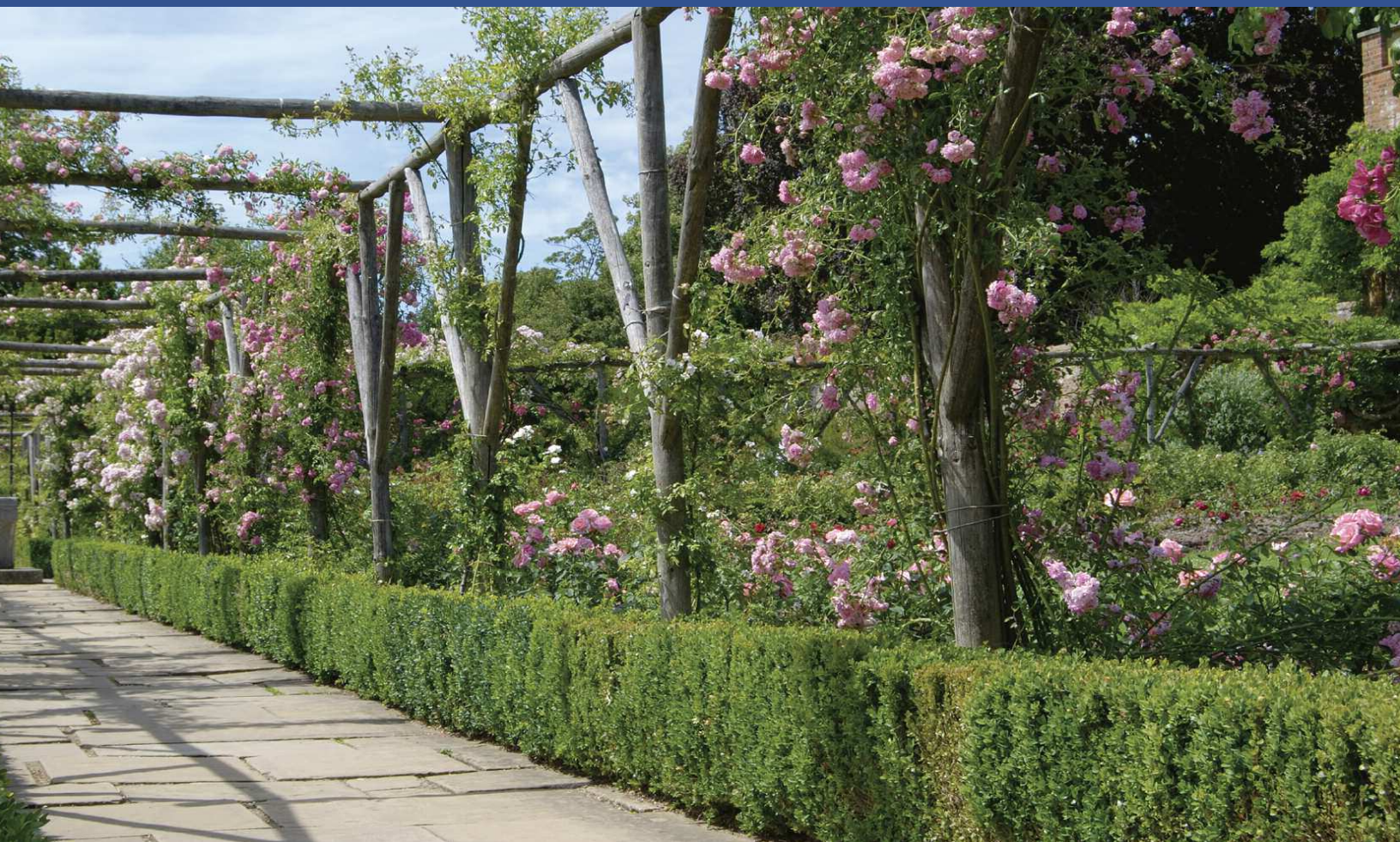


Table 12:
Evidence-Based Interventions to Reduce Ultraviolet Light Exposure

| INTERVENTION | RECOMMENDATION |
|---|-----------------------|
| Education and Policy | |
| • Primary school settings | Recommended |
| • Outdoor recreation settings | Recommended |
| • Child care centers | Insufficient Evidence |
| • Secondary schools and colleges | Insufficient Evidence |
| • Outdoor occupational settings | Insufficient Evidence |
| • Healthcare settings and providers | Insufficient Evidence |
| Parents and Caregivers | |
| • Interventions targeting children's parents and caregivers | Insufficient Evidence |
| Community-wide | |
| • Mass media campaigns | Insufficient Evidence |
| • Community wide multi component interventions | Insufficient Evidence |

<http://www.thecommunityguide.org> Last updated June 2, 2010.

Ultraviolet Light Exposure

Goal: *Alabamians will consistently reduce their cancer risk by decreasing their exposure to ultraviolet light.*

ADULTS

UV-AL-2011-2015-1

By 2015, decrease from 29.0% to 25.0% the proportion of Alabama adults who report having had sunburn within the past 12 months.

- Baseline: 29.0%
 - Target: 25.0%
 - Information source: 2004 BRFSS
- Strategies:
- Coordinate educational programs about the risk of overexposure to UV light, including light from tanning beds and importance of early detection of skin cancer.
 - Increase access to and use of sun protection such as sunscreen, hats and umbrellas particularly at large outdoor sporting events.

UV-AL-2011-2015-2

By 2015, establish a baseline and set an appropriate target to increase the proportion of Alabama adults who report following UV light protection guidelines to reduce risk of skin cancer.

- Baseline: Developmental
 - Target: Developmental
 - Information source:
- Strategies:
- Continue to promote guidelines at outdoor recreational events such as golf tournaments and football games.
 - Provide education materials to dermatologic physician practices to promote sun safety.

UV-AL-2011-2015-3

Inform the public of the cancer risk of tanning bed exposure.

- Baseline: Developmental
 - Target: Developmental
 - Information source: 2009 BRFSS
- Strategies:
- Set up a task force to study policies in other states that regulate tanning bed use among minors and make recommendations to **ACCCC** concerning Alabama legislation.
 - Review standards and regulations from other states and make recommendations for regulating tanning salons in Alabama.
 - Evaluate existing tanning bed inspections for potential radiation exposure.

YOUTH

UV-AL-2011-2015-4

Increase from 25.0% to 28.0% the proportion of Alabama youths in grades 9-12 who follow UV light protection guidelines to reduce skin cancer risk.

- Baseline: 25.0%
 - Target: 28.0%
 - Information source: 2007 YRBS, PRIDE survey
- Strategies:
- Educate children and youths about the skin cancer risk from natural and artificial sources of light.
 - Identify and promote the adoption of evidence-based skin cancer prevention curricula in Alabama schools.
 - Support the building of schools and recreational sites that have access to shade.
 - Provide education materials to primary care, pediatric and dermatologic physician practices to promote sun safety.

Ionizing Radiation Exposure

NATIONAL TRENDS

Radon

The President's Cancer Panel 2008-2009 recommends a prevention-oriented approach to potentially harmful environmental contaminants, including radon. Radon is a naturally occurring radioactive gas produced during the decay of uranium ore in soil and rocks. As radon forms in the earth, it rises and usually dissipates in the air. However, radon can become concentrated in enclosed buildings, including homes. Within these enclosed structures, radon can become concentrated to levels that increase cancer risk, particularly in people exposed to high levels of radon for a long period of time. Inhaling the odorless radioactive alpha particles produced by radon can damage DNA in lung cells (National Cancer Institute, 2010).

Among people who have never smoked, radon is the leading cause of lung cancer. It is the second leading cause of lung cancer in the U.S. overall. Radon-induced lung cancer causes an estimated average of 21,000 deaths each year. Long-term radon exposure may have a greater impact in the future as the population ages and exposure to radiation from medical sources increases (National Cancer Institute, 2010).

Because the environmental risk of residential radon has been demonstrated, the President's Cancer Panel recommends that the Environmental Protection Agency (EPA) should consider lowering its current action level (4 pCi/L) for radon exposure. The World Health Organization recommends a maximum acceptable radon concentration in a residential dwelling of 2.7 pCi/L (National Cancer Institute, 2010). Alabamians should be educated to increase awareness of radon-related cancer risk.

Medical Sources

In the early 1980s, medical sources accounted for only 15 percent of Americans' total radiation exposure. Today, medical sources are estimated to account for almost half (48 percent) of their total radiation exposure. It is possible numerous low doses of radiation and a single large dose of radiation may have similar effects on the body over time. Therefore, people who receive multiple tests requiring radiation may accumulate a dose equal to that of Hiroshima atomic bomb survivors who were 2,000-3,000 yards from the detonation. Among medical sources of radiation, computed tomography (CT) produces a larger radiation

dose than other imaging tests: an average chest CT delivers an effective radiation dose equal to as many as 350 chest x-rays. CT and nuclear medicine tests account for 75 percent of the medical radiation exposure in the U.S. population and 36 percent of the total radiation exposure (National Cancer Institute, 2010).

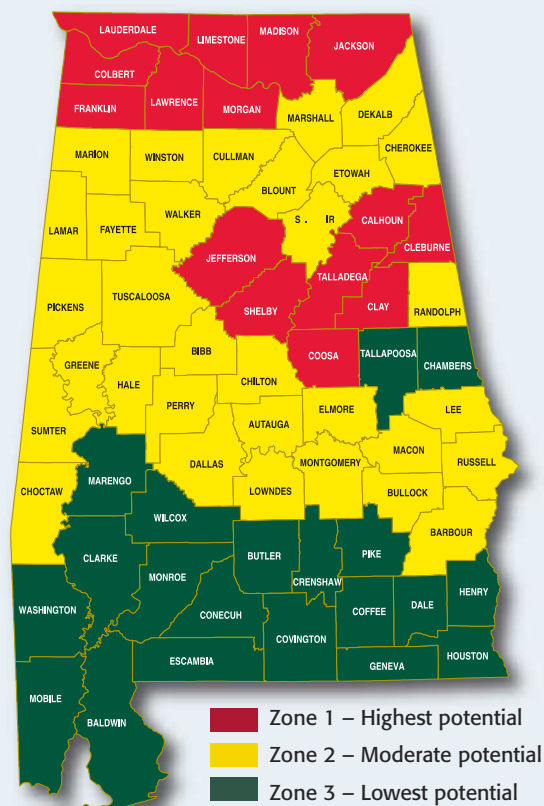
ALABAMA TRENDS

The Alabama Radon Education Program, a partnership of Auburn County Extension System, the ADPH Office of Radiation Control and the U.S. EPA, educates Alabama homeowners on how to test their homes for radon and the importance of mitigating their homes if elevated radon levels are found.

DISPARITIES

Radon is a particular concern in North Alabama where 15 counties are located in Radon Zone 1 and are considered to have the highest potential for elevated radon levels. In three of these North Alabama counties, about one of every three homes tested shows high levels of radon (Figure 6).

Figure 6: Alabama Radon Zones



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Ionizing Radiation continued

Medical imaging of children is of special concern throughout the U.S., including Alabama. Compared with adults, children have many more years of life during which a malignancy initiated by medical radiation can develop. Radiation imaging doses can vary depending on the equipment used, technologist skill, application of dose-reduction strategies and the patient. Alabama, along with four other states and the District of Columbia, currently has no licensure requirements for medical radiographers.

EXAMPLES OF CURRENT ACTIVITIES TO REDUCE EXPOSURE TO IONIZING RADIATION

The **ADPH Office of Radiation Control** is a member of the Conference of Radiation Control Program Directors (CRCPD) where states establish national guidelines to reduce exposures from all forms of ionizing radiation.

Alabama mammography inspectors are certified with the Food & Drug Administration (FDA) to perform facility inspections according to the Mammography Quality Standards Act of 1994.

Ionizing radiation continues to be an area of concern in Alabama. Currently, Alabama follows guidelines from the CRCPD on CT training and inspections. Alabama is part of the EPA Region 4 State Indoor Radon Grant program for the reduction of radon throughout the U.S.

ADVOCACY

In 2010 the ADPH Office of Radiation Control supported the National Lung Cancer Awareness month of November by providing free radon testing kits for newly diagnosed lung cancer patients. Funding was provided by additional grant money from the EPA.

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Ionizing Radiation Exposure

Goal: *Minimize Alabamians' exposure to ionizing radiation.*

EH-AL-2011-2015-1

By 2015, increase from 5.0% to 10.0% the percentage of Alabama households in high risk counties which report having been tested for radon exposure.

- Baseline: 5.0%
- Target: 10.0%
- Information source: ACES, ADPH

Strategies:

- Educate Alabamians about the risks and control of radon both inside and outside the home.
- Increase public awareness of the radon problem in Alabama and of the relationship between indoor radon exposure and lung cancer.
- Distribute kits to homeowners in susceptible areas.

EH-AL-2011-2015-2

By 2015, increase from 3 to 5 the number of Alabama municipalities which have adopted radon testing policies as part of residential building codes.

- Baseline: 3
- Target: 5
- Information source: ACES, ADPH

Strategies:

- Promote adoption of radon control measures as part of residential building codes for new home construction.

HPV/Cancer Vaccines

NATIONAL TRENDS

HPV is a primary cause of cervical cancers. It is the most common sexually transmitted infection in the United States with an estimated 6.2 million people infected each year. The prevalence of infection increases with each year of age, from 14 to 24 years, followed by a gradual decline through age 59 (CDC, 2010). Viruses like HPV can be prevented through behavioral change and/or vaccination.

In June 2006, the FDA approved the first HPV vaccine. Currently two HPV vaccines are licensed by the FDA and recommended by CDC: Cervarix® and Gardasil®. Both vaccines have been shown to prevent cervical cancer in women. The CDC states that HPV vaccines are recommended for use in 11-12 year old girls as part of their routine immunization schedule. They also suggest females 13 to 26 get a three dose regimen of the vaccine. The Vaccines for Children (VFC) program covers vaccination costs for children younger than 19 years of age who are Medicaid eligible, American Indian or Alaska Native, or those who have no health insurance.

Various studies have addressed potential barriers to receipt of HPV vaccination. One potential barrier is availability because some health care facilities do not stock the vaccine. U.S. health-care providers can improve availability by purchasing the vaccine privately, making it available for patients through self pay or insurance coverage. Providers can also stock vaccine for adolescents covered by the VFC Program. Various reasons for failure to stock are noted by different studies including up-front provider costs, parental reluctance to vaccinate and lack of public awareness. Parental motivation for vaccination can be driven by factors such as beliefs about likelihood of HPV infection and the safety of the vaccine. Dosing is also problematic, with the three-dose regimes panning 6 months. Another barrier is cost for those who have to cover the full price of the vaccine. Furthermore, people lack awareness of their eligibility for the VFC program. These types of barriers may affect the availability of the vaccine in areas of the state (Keating, 2008).

Acceptability is another concern affecting rates of HPV vaccination. Some researchers have

found higher acceptability when people believed the vaccine was effective, the physician recommended it and HPV infection was likely. Brewer and Fazekas (2007) recommend that US vaccination programs should emphasize high vaccine effectiveness, high likelihood of HPV infection and physician's recommendations to raise rates. Mayeaux (2005) studied factors that motivated parents toward acceptance of an HPV vaccination and parental education about the HPV vaccination was shown to overcome obstacles to HPV vaccine acceptance. Education significantly increases the number of parents who decide to allow the vaccine.

The National Immunization Survey (CDC, 2009) showed that among adolescent females (age 13-17) in the U.S., those with at least one dose of the HPV vaccine increased from 37.2 percent to 44.3 percent between 2008 and 2009. Those receiving all three doses of the vaccine increased from 17.9 percent to 26.7 percent.

ALABAMA TRENDS

Alabama's HPV vaccination rate lags behind the national rate. According to the National Immunization Survey-Teen, United States (CDC, 2008), nationally the estimated vaccination coverage among adolescents aged 13-17 years was 37.2 percent for one dose and 17.9 percent for three doses. Alabama's rates are slightly lower at 32.8 percent and 13.2 percent respectively. HPV infection rates are collected at ADPH but the data are not retained or used at this time, so no information is available regarding current infection rates in the state. Based on data from the ABCCEDP, the percent of women screened who were positive with HPV infections from 2006 to 2009 show an increasing trend: 2006=1.8%, 2007=2.4%, 2008=2.6% and 2009=4.1%. According the Alabama Cancer Facts and Figures 2010, the cervical cancer mortality rate in Alabama is 3.1, slightly higher than the U.S. rate of 2.6. In Alabama, black females have a higher cervical cancer mortality rate than white females with a rate of 5.5 versus 2.4. Rates are per 100,000, age adjusted to the 2000 Standard Million.

EXAMPLES OF CURRENT ACTIVITIES TO INCREASE HPV VACCINATION

UAB

Researchers at the **UAB** are using community-based participatory approaches to eliminate cervical cancer disparities. Based on the below projects, we anticipate individual, interpersonal, community and public policy changes.

Working with a local high school, investigators at the UAB Minority Health and Health Disparities Research Center (MHRC) have trained high school students as Community Health Advisors (CHAs) to deliver health education to their schoolmates. Investigators utilized an evidence-based curriculum for instruction on basic reproductive health and prevention of sexually transmitted infections (STIs). Special emphasis in these training sessions has been placed by the investigators on prevention and transmission of HPV.

The aim of Health-e-Teen is to assess the feasibility of using a community-based participatory approach to develop an interactive teen website, with opt-in text messaging capability, focused on adolescent reproductive health. The purpose of the website and the text messages are to:

1. Increase STI and HPV knowledge.
2. Acknowledge severity of STIs and HPV infection/cancer risk.
3. Acknowledge individual susceptibility to STIs and HPV infection.
4. Increase willingness to receive HPV vaccination.

A well-established and diverse coalition aims to use direct action organizing principles to educate and mobilize community stakeholders to advocate for public policy changes that enhance cervical cancer screening and HPV awareness.

ADPH

Through the CDC, the **VFC Program** offers vaccines for eligible Alabama children at no cost through VFC-enrolled doctors, clinics, hospitals, schools, or health departments. Children are eligible for the VFC program if they meet one of the following criteria: Medicaid eligible, uninsured, American Indian or Alaska Native, or a child who has insurance but is considered underinsured.

With the passage of the new Patient Protection and Affordable Care Act vaccinations are available at no cost for new insurance enrollees after September 23, 2010; an excellent education opportunity exists.

Since no state law exists regarding HPV vaccination, our focus must include concentrated outreach efforts to reach Alabama youth and their parents about the importance of this valuable tool against cancer. At the time of Gardasil's® FDA approval, two meetings were held among ADPH stakeholders, attended by the **ACCCP**, the Office of Women's Health, the Office of Minority Health, the Alabama Breast and Cervical Cancer Early Detection Program (ABCCEDP), the Bureau of Family Health Services' Women's Health Division, the Pharmacy Division, the Immunization Division and the Sexually Transmitted Disease (STD) Division. Attendees acknowledged a common interest and need for an ADPH policy statement concerning HPV. In January of 2010, these same agencies attended an HPV and Cervical Cancer Satellite Conference sponsored by ADPH.

Individuals from the **Office of Women's Health and Office of Minority Health** have coordinated and conducted many activities for HPV and cervical cancer awareness. Education presentations were provided on HPV and cervical cancer to The Lovelady Center in Birmingham for homeless and drug addicted women. In addition, several prisons for high risk incarcerated women were included: Tutwiler prison, Birmingham Work Release Center for Women and Montgomery Women's Facility. Information was shared on HPV and cervical cancer prevention issues, signs and symptoms, early detection, treatment and vaccine awareness to several community and faith-based groups.

The **ACCCP** is reaching parents and college aged women through campus events, magazine ads and ad campaigns in theaters to raise awareness and educate Alabamians regarding the HPV vaccine. The **ACCCP** is also targeting primary care physicians in Alabama by advertising in their quarterly membership journal. The ad is structured to encourage physicians to educate patients about the HPV vaccine and ask patients if they would like to be vaccinated.

DISPARITIES

Women at lower educational levels have lower cervical cancer screening rates. HPV prevention and cervical cancer early detection educational efforts need to be directed toward these risk groups. Also, blacks in Alabama have almost three times the cervical cancer mortality rate of whites.

ADVOCACY

Protecting Alabama women through HPV vaccination is not a simple task. It requires multiple strategies that involve public awareness, physician education, patient reminders, increased access, quality assurance, improved provider attitudes about the importance of immunization and system changes to support immunization. This approach will lead to intermediate outcomes such as increased adherence to a three dose regimen, plus long term outcomes of decreased HPV infection and the reduction of deaths from cervical, oral and pharyngeal cancer in Alabama. As of

February 2010, only Virginia and Washington, D.C., had enacted mandates for HPV vaccination (Colgrove, 2010). Any considerations for legislative process or school based requirements need to be evidence-based and consider all stakeholders in the issues. Alabama needs a statewide HPV Taskforce with community and legislative support to research the barriers to HPV vaccination.

Parents can be educated about the importance of having their child vaccinated at the recommended age of 11-12 as part of their routine immunization schedule. They can also be educated on the relationship between the virus and cervical, oral and pharyngeal cancers.

College aged women can be educated regarding healthcare reform and the possibility of being covered for vaccinations under their parents insurance through the age of 26. Also, universities' health centers can be encouraged to stock the vaccine so that women can readily obtain the vaccine.

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HPV Vaccine

Goal: *Prevent cervical cancer in Alabamians by vaccinating against HPV infections.*

I-AL-2011-2015-1

Increase initiation of HPV vaccine series for adolescents as recommended by the Advisory Committee on Immunization Practices.

- Baseline: 49.0% (2009)
- Target: 75.0% (2015)
- Information source: National Immunization Survey (NIS) Teen, CDC
- Strategies:
 - Promote HPV vaccination to parents of adolescent girls.
 - Increase public awareness about HPV vaccine and the relationship to cervical cancer prevention.
 - Improve HPV vaccination of adolescents in the state through educational interventions aimed at providers.
 - Increase knowledge of HPV vaccination coverage to those insured through State Children's Health Insurance Program (SCHIP).

I-AL-2011-2015-2

Increase completion of HPV vaccine series for adolescents as recommended by the Advisory Committee on Immunization Practices.

- Baseline: 25.0% (2009)
- Target: 50.0% (2015)
- Information source: National Immunization Survey (NIS) Teen, CDC
- Strategies:
 - Promote HPV vaccination to parents of adolescent girls.
 - Increase public awareness about HPV vaccine and the importance of completing the three dose regimen.
 - Improve HPV vaccination of adolescents in the state through educational interventions aimed at providers.
 - Increase knowledge of HPV vaccination coverage to those insured through SCHIP.
 - Encourage the use of patient reminder systems among family practice and pediatric providers to help patients remember to complete the three dose regimen.

I-AL-2011-2015-3

By 2015, establish a baseline and set an appropriate target to increase the number of adult females over 18 who report initiation of the HPV vaccine series.

- Baseline: Developmental
- Target: Developmental
- Information source: BRFSS
- Strategies:
 - Promote HPV vaccination and raise awareness of cervical cancer to females attending college in Alabama.
 - Increase the knowledge of college aged females regarding HPV vaccination coverage under their parents' insurance.

I-AL-2011-2015-4

By 2015, establish a baseline and set an appropriate target to increase the number of females who report completion of the HPV vaccine series.

- Baseline: Developmental
- Target: Developmental
- Information source: BRFSS
- Strategies:
 - Promote HPV vaccination and raise awareness of cervical cancer to females attending college in Alabama.
 - Increase the knowledge of college aged females regarding HPV vaccination coverage under their parents' insurance.
 - Increase public awareness about HPV vaccine and the importance of completing the three dose regimen.
 - Encourage the use of patient reminder systems among family practice and pediatric providers to help patients remember to complete the three dose regimen.

SECONDARY PREVENTION: Early Detection

Our Overall Goal

All cancer cases in Alabama will be detected and diagnosed at an early stage in order to optimize treatment choices and the probability of cure.

Although people are unable to change their genetic makeup, they are able to reduce their risk of certain cancers by following the recommended screening guidelines. Screening tests offer a powerful opportunity to detect and successfully treat many cancers, sometimes before they are even considered cancers. Detection of disease in an early or asymptomatic stage greatly improves available treatment options for many cancers and increases the likelihood for cure.

For cancer screening to be effective, it must demonstrate an ability to reduce cancer-related morbidity and mortality. Also, the effectiveness of screening depends on specificity and sensitivity; that is, people who have the disease must have a high likelihood of testing positive and people who do not have the disease must have a high probability of testing negative. And, screening tests must be affordable, not only so that they are accessible to individuals, but also so that the costs of screening entire populations do not outweigh the benefits.

Making cancer screening services readily available and accessible to all Alabamians is essential for reducing higher rates of cancer incidence and mortality in Alabama. Finally, cancer screening cannot be effective unless tests are acceptable to and used by the population at risk, and are repeated at intervals appropriate to detect early and pre-cancer.

Public education is extremely important in the role of early detection. Appropriate decision-making aids must be disseminated to Alabamians to educate about the benefits of proven cancer screening methods. Health care professionals also play an important role by providing information about cancer screening services, encouraging their patients to participate in routine screening procedures and systematically integrating the established guidelines in a routine standard of care.

The Early Detection section focuses on five types of cancer: breast, cervical, colorectal, prostate and skin. The primary goals of secondary prevention include supporting policy and system changes that assure improved access to screening tests with appropriate follow-up after testing (ADPH, 2010).

Many health organizations, including ACS and U.S. Preventive Services Task Force (USPSTF, 2009), recommend regular cancer screening for at-risk populations. The USPSTF and the ACS have separate screening recommendations regarding age and frequency of screening. Because the CDC measures each state's progress in controlling cancer against USPSTF guidelines, this document refers to the USPSTF guidelines throughout this section. ACS and USPSTF guidelines can be found in the Appendices of this plan.

Breast Cancer and Cervical Cancer

NATIONAL TRENDS AND SCREENING RECOMMENDATIONS

The ACS (2011) estimates 232,620 new cases of invasive breast cancer and 39,970 breast cancer deaths will occur in the United States in 2011. From 2002 to 2003, the incidence rate for breast cancer declined dramatically, probably due to reductions in menopausal hormone therapy. The national incidence rates have remained relatively stable since 2003 (ACS, 2011a). Researchers of the Women's Health Initiative randomized clinical trial noted that the increased risk of breast cancer associated with the use of estrogen plus progestin declined noticeably soon after the discontinuation of estrogen plus progestin hormone therapy and was unrelated to frequency of mammography (Chlebowski et al., 2010).

Widespread use of screening, along with treatment advances in recent years, has been credited with significant reductions in breast cancer mortality, a rate that decreased by 1.9 percent between 1998 and 2006. The 2009 USPSTF has recommended that for biennial screening mammography in women aged 50 to 74 years, there is moderate certainty that the net benefit is moderate. In trials that demonstrated the effectiveness of mammography in decreasing breast cancer mortality, screening was performed every 12 to 33 months. The evidence reviewed by the USPSTF indicates that a large proportion of the benefit of screening mammography is maintained by biennial screening, and changing from annual to biennial screening is likely to reduce the harms of mammography screening by nearly half. At the same time, benefit may be reduced when extending the interval beyond 24 months; therefore the 2009 USPSTF recommends biennial screening. This recommendation updates the 2002 recommendation by providing specific recommendations for mammography screening by age. The previous recommendation statement recommended screening mammography every one to two years for all women older than 40 years. The USPSTF now recommends against routine screening of women aged 40 to 49 years (C recommendation), and recommends biennial screening mammography for all women aged 50 to 74 years (B recommendation). USPSTF guidelines also conclude that current evidence is insufficient to assess the balance of benefits and harms of screening women over 75. Another recommendation by the USPSTF is against teaching breast self examination (BSE) (D recommendation), replacing the previous statement of insufficient evidence. The evidence for clinical breast examination (CBE) continues to be assessed as insufficient. Digital mammography and MRI as screening tools were not addressed in the 2002 recommendation statement; the USPSTF concludes that the evidence is insufficient to assess the harm or benefits.

In regard to secondary prevention of cancer, screening for cervical cancer has shown the greatest success. The numbers of deaths prevented through early detection have been increased with the Papanicolaou (Pap) test for cervical cancer screening (Gapstur, 2010). The 2009 USPSTF strongly recommends screening for cervical cancer in women who have been sexually active and have a cervix. Nonetheless, there are disparities in the burden of cervical cancer. In the U.S. most cervical cancers occur in underserved, under-screened women (Scarinci, 2010). Annual rates in these populations are higher than the overall national rates.

ALABAMA TRENDS

According to the *Alabama Cancer Facts and Figures* (2010), the breast cancer incidence rate in Alabama increased 8.1 percent between 2004 and 2008. Breast cancer mortality decreased by 2.6 percent in Alabama during the same period. Although white women in Alabama have a higher breast cancer incidence rate than black women (114.2 versus 112.3), black women in Alabama have a higher breast cancer mortality rate (32.0 versus 25.1). Black women in Alabama also have a higher rate of mammography screening than white women (ACS, ADPH, 2010).

Data retrieved from the Alabama Statewide Cancer Registry show a five year (2003-2007) cervical cancer incidence rate of 8.6. The incidence rate during the same time period was 8.1 for white females and 10.1 for black females. The Alabama cervical cancer incidence rates are very similar to national rates. The national incidence rates are 7.7 for white females and 10.7 for black females. All rates are per 100,000 and age-adjusted to the 2000 Standard Million.

DISPARITIES

In the U.S., black women are less likely to survive breast cancer for five years than white women, a difference that can be attributed in part to later stage at diagnosis and a higher case fatality rate. Tumor prognostic factors may also contribute to poorer survival among black women (ACS, 2011b). Also, socioeconomic status, including educational attainment, affects the five year relative survival rate with breast cancer. Women with higher socioeconomic status are more likely to survive. This disparity may be explained by barriers women with lower socioeconomic status face, such as a lack of access to health care and preventative services (ACS, 2011a). Women who are diagnosed at a younger age, before 40, also have a lower survival rate, possibly because of tumors found in younger women being more aggressive or difficult to treat (ACS, 2009).

(continued on next page)

Breast Cancer and Cervical Cancer continued

Efforts to increase screening have focused on targeting women with lower education levels who have lower rates of mammogram screening. In 2010, only 68.1 percent of women over 50 in Alabama with less than a high school education were screened for breast cancer, compared to 83.3 percent of college graduates (Table 13). These same groups are also at risk for lower levels of cervical cancer screening (Table 14).

Table 13:

Women Aged 50+ Who Have Had a Mammogram Within the Past Two Years

| EDUCATION | | YES | NO |
|------------------|----|-------------|-------------|
| Less than H.S. | % | 68.1 | 31.9 |
| | CI | (62.7 73.4) | (26.6 37.3) |
| | n | 431 | 181 |
| H.S. or G.E.D. | % | 76.9 | 23.1 |
| | CI | (73.6 80.2) | (19.8 26.4) |
| | n | 993 | 271 |
| Some post-H.S. | % | 80.0 | 20.0 |
| | CI | (76.4 83.6) | (16.4 23.6) |
| | n | 695 | 167 |
| College graduate | % | 83.3 | 16.7 |
| | CI | (79.3 87.2) | (12.8 20.7) |
| | n | 587 | 112 |

Source: BRFSS 2008

Table 14:

Women Aged 18+ Who Have Had a Pap Test Within the Past Three Years

| EDUCATION | | YES | NO |
|------------------|----|-------------|-------------|
| Less than H.S. | % | 66.6 | 33.4 |
| | CI | (59.7 73.5) | (26.5 40.3) |
| | n | 232 | 118 |
| H.S. or G.E.D. | % | 79.8 | 20.2 |
| | CI | (76.4 83.1) | (16.9 23.6) |
| | n | 713 | 217 |
| Some post-H.S. | % | 85.7 | 14.3 |
| | CI | (82.3 89.1) | (10.9 17.7) |
| | n | 652 | 124 |
| College graduate | % | 90.2 | 9.8 |
| | CI | (86.9 93.5) | (6.5 13.1) |
| | n | 678 | 82 |

Source: BRFSS 2008

American Indians in Alabama are provided comprehensive care including Pap test and mammogram appointments through the Indian Health Service (IHS).

EXAMPLES OF CURRENT ACTIVITIES TO INCREASE BREAST AND CERVICAL CANCER SCREENING

One focus area for the ACS is the detection of breast cancer at the earliest stage possible, with emphasis on addressing the needs of the medically underserved and black populations. A recommended strategy to support this focus area is to change physician behavior. As a result of this program, over 150 clinics and 1,500 providers in the Mid-South Division have made changes in their clinical systems. Collaboration with the **Alabama Quality Assurance Foundation (AQAF)** in the 9th Scope of Work has resulted in a 50.9 percent increase in mammography screenings among targeted providers.

ACS Mid-South also proposes to pilot a new *A Powerful Team (APT)* model based on providing centralized clinical systems change consulting, on-site prevention health advisors (based on the CHA model), patient centered medical home, NCQA and Centers for Medicare and Medicaid accreditation programs and financial incentives for targeted primary care Federally Qualified Health Care Centers throughout the division. In these clinics, the focus will be on taking the best practices determined from the original version of *APT*: standardizing materials and processes, assessing levels of clinical systems change readiness and solicitation of grants for clinics willing to implement *APT* with off-site ACS technical assistance. Local prevention health advisors will be trained within the practices and on-going technical assistance will be provided. Funds provided through the grant process will incent baseline and annual audits of prevention counseling and screening referrals, reminder recall systems, quality improvement clinical guidelines and promote the interoperability of medical records with referral hospitals.

The ACS has joined the American Heart Association and the American Diabetes Association to develop www.everydaychoices.org and the "Everyday Choices Preventive Health Partnership Health Card Kits." These health card kits are free clinic tools that cover all recommended screenings for cancer, heart disease, stroke and diabetes. Additionally, the Everyday Choices website and Everyday Choices brochure offer resources designed to educate patients on self-management of health

risk behaviors and teach them how to avoid preventable health conditions.

UAB was recently awarded a Center of Excellence in the Elimination of Disparities (CEED) grant by CDC due to the proven results of their first **Racial and Ethnic Approaches to Community Health (REACH)** grant. The development and implementation of the REACH US Mid-South CEED is focused on breast and cervical cancer among black women. The CEED grant will allow for expansion of ongoing efforts of REACH 2010 (which has already shown impact in reducing breast and cervical cancer disparities) and will develop a comprehensive model that addresses disparities not only in screening but throughout the entire healthcare continuum: prevention, early detection, treatment and survivorship. Following the socio-ecological model, the CEED is serving as a basis for the development of culturally appropriate community-based systems, policy approaches and interventions to eliminate health disparities in other conditions. As a CEED partner, the ACS is serving in the role of convener for the CEED, bringing together partners with the ability to replicate disparities-reducing activities.

REACH U.S. is a CDC project designed to serve as a national clearinghouse and important cornerstone of evidence-based and promising practices to eliminate racial and ethnic health disparities in the U.S. This program builds on the body of knowledge initiated by projects funded under REACH 2010.

The Socio-ecological model, community-based participatory approaches and the 5 A's (awareness, adequacy, affordability, access & advocacy) are the guiding principles and models of the REACH U.S. project. UAB serves as the central coordinating organization for REACH U.S. With the assistance of the ACS, Mid-South Division, their National Partner, REACH U.S. is: implementing and evaluating innovative approaches to improving health in communities, healthcare settings and work sites; disseminating effective strategies that eliminate racial and ethnic health disparities; addressing the social determinants of health through policy and environmental change; and providing legacy funding opportunities to non-profit organizations on an annual basis.

The Alabama Coalition consists of three committees:

1. Advocacy/Policy to enhance access to breast and cervical cancer screening and treatment to underserved women in Alabama.

2. Economics to empower impoverished communities to facilitate economic growth.
3. Community/Systems to coordinate and/or streamline statewide breast cancer awareness to effect a 3 percent absolute reduction in mammogram disparity in the Medicare population in the four target counties.

More information about REACH US can be found at <http://mhrc.dopm.uab.edu/REACHUS/home.html>.

The **Southeast Regional Health Screening Program** is a mobile health screening program designed and implemented to provide life-saving cancer screening to at-risk individuals living in rural southeast Alabama and neighboring counties in northwest Florida and southwest Georgia. Screening services provided onboard the mobile medical unit are digital screening mammograms to screen for breast cancer, PSA blood tests for prostate cancer screening and fecal occult blood testing for colo-rectal cancer. This program is an outreach program of Southeast Alabama Medical Center, a 440 bed not-for-profit hospital located in Dothan, Alabama. The mobile program provides screenings to more than 1,400 individuals each year through screening events at senior centers, nursing homes, businesses, healthfairs, churches and community gatherings. The program has been a recipient of grant funds from the Avon Breast Health Program since 2006 and has received several federal grants to upgrade equipment to ensure the highest quality testing. An important function of screening staff is to provide health education to clients, as well as provide the actual screenings. This is the only mobile health screening program of its kind in Alabama. By being a reliable and visible health care partner in our rural communities, the Southeast Regional Health Screening Program is succeeding in improving the health of citizens in our region.

Deep South Network (DSN) for Cancer Control was established to develop sustainable community infrastructure to promote cancer awareness and early detection screening among blacks residing in the Alabama Black Belt and Mississippi Delta (Scarinci, 2010). The overall goal of the DSN is to eliminate the disparity in cancer death rates between blacks and whites in the Deep South. The program targets two poor rural areas – the Black Belt of Alabama and the Delta of Mississippi; and two urban areas – Jefferson County, Alabama, and Hattiesburg/Laurel Metro, Mississippi. UAB and the University of Southern Mississippi work together on this program.

Breast Cancer and Cervical Cancer continued

The DSN builds upon community infra-structures, state partnerships and coalitions to:

1. Provide cancer awareness activities.
2. Support minority enrollment in clinical trials.
3. Promote the development of minority junior biomedical researchers.

The Community Health Advisor (CHA) model is used to train women who are natural helpers to provide cancer awareness messages and resources to their communities.

DSN has recruited and trained more than 550 volunteer CHAs as research partners for these efforts in underserved communities. The network received a grant to recruit 30 volunteers among Hale, Greene, Sumter, Perry and Jefferson counties for DSN CHAs to be trained as Komen Community Health Advisors (K-CHAs). These volunteers received training on the Komen for the Cure Foundation and information on grant and advocacy opportunities. The K-CHAs conducted 22 community events and 30 Pink Sundays reaching 5,028 participants.

With regard to Pap test use in targeted counties, 0.8 percent of eligible white women between the ages of 50 and 64 years of age obtained a Pap test between 2004 and 2005, a percentage that increased to 3.6 percent between 2007 and 2008 (Scarinci, 2010). In black women the percentage was 2 percent at baseline compared to 9.2 percent in 2007 and 2008. The CHAs have been further trained as research partners (CHA-RPs) to enhance black participation in clinical trials.

The **ABCCEDP** provides free breast and cervical cancer screenings for women who meet eligibility guidelines. Free services include a pelvic exam, Pap test, clinical breast exam (CBE), mammogram and diagnostic services such as an ultrasound, colposcopy or biopsy, if needed. From June 30, 2009 to June 29, 2010 the program reported:

- 14,566 screenings
- 12,247 clinical breast exams
- 12,818 mammograms
- 5,500 pap smears
- 151 breast cancers detected
- 23 cervical cancers detected

Since the beginning of the program in 1996, the ABCCEDP has reported:

- 72,840 screenings
- 110,294 clinical breast exams
- 91,661 mammograms
- 65,076 pap Smears
- 1,340 breast cancers detected
- 344 cervical cancers detected

The program submits data to CDC twice yearly, and the last submission in October 2009 demonstrated that all 11 of CDC's core program performance indicators were met (K. Seetala, Personal Communication, April 28, 2011).

The **Susan G. Komen Foundation's** mission is to save lives and end breast cancer forever by empowering people, ensuring quality of care for all and energizing science to find the cures. The Susan G. Komen Breast Cancer Foundation was established in 1982 by Nancy Brinker to honor the memory of her sister, Susan Komen, who died from

Table 15:

Quality Indicators of ABCCEDP Program

| INDICATOR TYPE | PROGRAM PERFORMANCE INDICATOR | CDC STANDARD | ALABAMA RESULTS |
|---------------------------------------|---|--------------|-----------------|
| Screening | Initial Program Pap Tests; Rarely or Never Screened | >20% | 28.4% |
| | Screening Mammograms Provided to Women >50 Years of Age | >75% | 85.7% |
| Cervical Cancer Diagnostic Indicators | Abnormal Screening Results with Complete Follow Up | >90% | 90.0% |
| | Abnormal Screening Results; From Screening to Diagnosis >60 Days | <25% | 11.9% |
| | Treatment Started for Diagnosis of HSIL, CIN II, CIN III, CIS, Invasive | >90% | 100.0% |
| | HSIL, CIN II, CIN III, CIS; Time from Diagnosis to Treatment >90 Days | <20% | 4.5% |
| | Invasive Carcinoma; Time from Diagnosis to Treatment >60 Days | <20% | 0% |
| Breast Cancer Diagnostic Indicators | Abnormal Screening Results with Complete Follow Up | >90% | 91.7% |
| | Abnormal Screening Results; From Screening to Diagnosis >60 Days | <25% | 6.1% |
| | Treatment Started for Breast Cancer | >90% | 98.4% |
| | Breast Cancer; Time from Diagnosis to Treatment >60 Days | <20% | 4.0% |

breast cancer at the age of 36. More than 20 years later, the Komen Foundation is a global leader in the fight against breast cancer.

The Susan G. Komen for the Cure, North Central Alabama Affiliate, is a non-profit organization providing funding since 2000 through the ABCCEDP for free mammograms for medically underserved women 40-49 years of age in Alabama's northern counties. The counties include Bibb, Blount, Calhoun, Chambers, Cherokee, Chilton, Clay, Cleburne, Colbert, Coosa, Cullman, DeKalb, Etowah, Fayette, Franklin, Greene, Hale, Jackson, Jefferson, Lamar, Lauderdale, Lawrence, Limestone, Madison, Marion, Marshall, Morgan, Perry, Pickens, Randolph, Shelby, St. Clair, Sumter, Talladega, Tallapoosa, Tuscaloosa, Walker and Winston.

Joy To Life (JTL) is one of the key funders for the ABCCEDP. JTL's funds are used to help 40-49 year old, low income, underinsured or uninsured women get screening mammograms in the southern counties of Baldwin, Barbour, Bullock, Butler, Choctaw, Clarke, Coffee, Conecuh, Covington, Crenshaw, Dale, Dallas, Escambia, Geneva, Henry, Houston, Lee, Lowndes, Macon, Marengo, Mobile, Monroe, Pike, Russell, Washington and Wilcox. Previously, women aged 40-49 were eligible to get only clinical breast exams with CDC funding. JTL funding helped make it possible for all the women living in these counties to get a screening mammogram. The Annual Walk of Life, a 5K walk or run through historic Montgomery, is the major fundraiser for the JTL Foundation. It is intended to raise awareness and dollars to continue providing free mammograms. The Foundation has a Fight Breast Cancer car tag that is now available. The ABCCEDP receives more than 80 percent of the proceeds generated by the "#87" Fight Breast Cancer car tags.

The **National Breast Cancer Foundation** is a non-profit organization whose mission is to save lives by increasing awareness of breast cancer through education and by providing mammograms for those in need. Since 2009, the National Breast Cancer Foundation has provided funds to the ABCCEDP to ensure women aged 40-49 with no insurance and a low income receive free breast cancer screening services.

ADVOCACY

Lawmakers passed the 2009 Breast and Cervical Cancer Prevention and Treatment Act, House Bill 147. This bill ensures that women diagnosed with breast and cervical cancer who meet the eligibility requirements for the ABCCEDP in Alabama are eligible for treatment through Medicaid coverage.

Another achievement in Alabama was the Passage of the Breast, Cervical and Colorectal Cancer Awareness Act in 2010 (House Bill 600) which provides that the ADPH shall establish programs for breast, cervical and colorectal cancer awareness and was effective January 1, 2011. There are multiple provisions within this Act which include screening for uninsured and underserved individuals throughout the state, raising public awareness and reducing morbidity and mortality. Implementations of the provisions within the act are dependent upon funding availability.

The Mid-South Division of the ACS champions the ABCCEDP by educating policy makers of the state about the importance of funding the screening program. Every year a rally is held at the Capitol to bring the human side of breast and cervical cancer to the forefront. Relationships between ACS and Coalition partners allow effective results when grant applications and legislation are strengthened through grass roots efforts or resolutions.

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(continued on next page)

Breast and Cervical Cancer

Goal: *Increase the number of breast and cervical cancer cases in Alabama diagnosed early through patient navigation and quality screening.*

BREAST CANCER

C-AL-2011-2015-1

By 2015, increase from 74.1% to 79.0% the percentage of Alabama women 50 and older who report having had a mammogram in the past two years.

- Baseline: 74.1%
 - Target: 79.0%
 - Information source: 2008 BRFSS; ABCCEDP
- Strategies:
- Collaborate with existing community leaders and organizations to provide comprehensive educational campaigns regarding the importance of breast cancer screening and early detection.
 - Provide continuing professional education programs for primary care providers regarding adherence to established breast cancer screening guidelines.

C-AL-2011-2015-2

By 2015, increase by 5% the utilization of mammography services by medically underserved women enrolled in the ABCCEDP.

- Baseline: 8.0% in whites and 29.0% in blacks
 - Target: 13.0% in whites and 34.0% in blacks
 - Information source: ABCCEDP
- Strategies:
- Collaborate with existing community leaders and organizations to provide comprehensive educational campaigns regarding the importance of breast cancer screening and early detection.
 - Promote community awareness about availability of low or no cost breast cancer screening services for underserved women.
 - Promote community awareness about necessity for funding low or no cost breast cancer screening services for underserved women.
 - Increase the number of patient navigators to help remove barriers and increase access to care.

C-AL-2011-2015-3

By 2015, increase from 65.9% to 70.0% the proportion of Alabama's breast cancer cases that are diagnosed as in situ or localized disease.

- Baseline: 65.9%
 - Target: 70.0%
 - Information source: ASCR
- Strategies:
- Collaborate with existing community leaders and organizations to provide comprehensive educational campaigns regarding the importance of breast cancer screening and early detection.
 - Promote community awareness about availability of low or no cost breast cancer screening services for underserved women.
 - Increase the number of patient navigators to help remove barriers and increase access to care.
 - Provide continuing professional education programs for primary care providers regarding adherence to established breast cancer screening guidelines.

CERVICAL CANCER

C-AL-2011-2015-4

By 2015, increase from 81.3% to 86.0% the percentage of Alabama women age 18 and older who report having had a Pap test within past 3 years.

- Baseline: 81.3%
 - Target: 86.0%
 - Information source: 2008 BRFSS
- Strategies:
- Collaborate with existing community leaders and organizations to provide comprehensive educational campaigns regarding the importance of cervical cancer screening and early detection.
 - Provide continuing professional education programs for primary care providers regarding adherence to established cervical cancer screening guidelines.

C-AL-2011-2015-5

By 2015, increase by 5% the utilization of cervical cancer screening services by medically underserved women enrolled in ABCCEDP.

- Baseline: 3.6% in whites and 9.2% in blacks
 - Target: 8.6% in whites and 14.2% in blacks
 - Information source: ABCCEDP
- Strategies:
- Collaborate with existing community leaders and organizations to provide comprehensive educational campaigns regarding the importance of breast cancer screening and early detection.
 - Increase the number of patient navigators to help remove barriers and increase access to care.
 - Promote community awareness about availability of low or no cost cervical cancer screening services for underserved women.

C-AL-2011-2015-6

By 2015, increase from 51.7% to 55.0% the portion of Alabama's cervical cancer cases that are diagnosed at early stage (localized disease).

- Baseline: 51.7%
 - Target: 55.0%
 - Information source: ASCR
- Strategies:
- Collaborate with existing community leaders and organizations to provide comprehensive educational campaigns regarding the importance of cervical cancer screening and early detection.
 - Promote community awareness about availability of low or no cost cervical cancer screening services for underserved women.
 - Increase the number of patient navigators to help remove barriers and increase access to care.

Colorectal Cancer

NATIONAL TRENDS AND SCREENING RECOMMENDATIONS

The ACS (2011) estimated that, in 2011, about 145,268 people would be diagnosed with colorectal cancer (CRC) and 49,380 people would die from the disease. Colorectal cancer is the third most common cancer and the second leading cause of cancer death in the U.S. and Alabama.

Colorectal cancer is an abnormal growth of cells in the colon, the large intestine and/or the rectum. These abnormal cells form into pre-cancerous polyps called adenomas. If these polyps are not removed, they can later develop into colorectal cancer. Colorectal cancer is preventable and highly curable when found early. If the polyps are found through screening tests, they can be removed before they have a chance to become cancerous.

Colorectal cancer screening is recommended to average risk individuals over 50 years of age, and new technology in screening tests such as the fecal immunochemical test (FIT/iFobt) can be performed at home and do not require changes in diet or medications.

In 2008, the USPSTF stated that population screening programs between the ages of 50 and 75 years using any of the following three regimens will be approximately equally effective in life years gained, assuming 100 percent adherence to the same regimen for that period:

1. Annual high sensitivity fecal occult blood testing.
2. Sigmoidoscopy every five years combined with high-sensitivity fecal occult blood testing every three years.
3. Screening colonoscopy at intervals of 10 years.

For the first strategy, tests that meet a gain in life years similar to that seen with screening colonoscopy every ten years include SENSEA guaiac testing and fecal immunochemical tests (FIT or iFOBT). The USPSTF recommends against routine screening for colorectal cancer in adults 76 to 85 years of age, although there may be considerations that support colorectal cancer screening in an individual patient (C recommendation). USPSTF concludes that the evidence is insufficient to assess the benefits and harms of computed tomographic colonography and fecal DNA testing as screening modalities for colorectal cancer.

Table 16:

Adults Aged 50 and Over Who Have Had a Blood Stool Test Within the Last Two Years

| EDUCATION | | YES | NO |
|------------------|----|-------------|-------------|
| Less than H.S. | % | 16.2 | 83.8 |
| | CI | (13.0 19.4) | (80.6 87.0) |
| | n | 120 | 580 |
| H.S. or G.E.D. | % | 20.4 | 79.6 |
| | CI | (17.7 23.1) | (76.9 82.3) |
| | n | 283 | 1025 |
| Some post-H.S. | % | 22.0 | 78.0 |
| | CI | (18.9 25.1) | (74.9 81.1) |
| | n | 234 | 780 |
| College graduate | % | 24.9 | 75.1 |
| | CI | (21.1 28.8) | (71.2 78.9) |
| | n | 217 | 667 |

Source: 2008 BRFSS

ALABAMA TRENDS

From 2003-2007 the age-adjusted Alabama incidence rate of colorectal cancer was 50.0 cases per 100,000, slightly higher than the U.S. rate of 48.9 cases per 100,000 people. The ACS estimates that 2,300 new cases of colorectal cancer and an estimated 950 colorectal cancer deaths are expected to have occurred in Alabama in 2010 (ACS, ADPH, 2010).

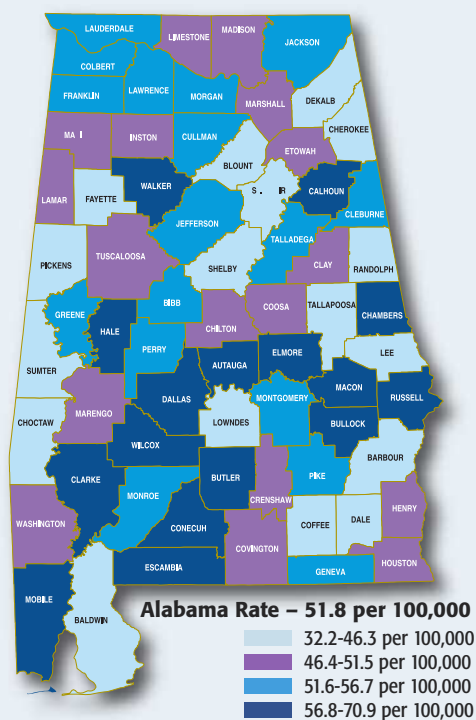
DISPARITIES

When comparing data from *Alabama Cancer Facts and Figures 2010* by race in Alabama for years 1999-2008, blacks have a 20 percent higher incidence rate of colorectal cancer at 62.1 than do whites (51.7). Black females have a higher incidence rate than white females (54.4 versus 42.5), and black males have a higher rate than white males (73.9 versus 63.6). Also, black males died at a 55 percent higher rate compared to white males (33.1 versus 21.3). Black females died at a 54 percent higher rate from colorectal cancer compared to white females (21.3 versus 13.8). Rates are per 100,000, age adjusted to the 2000 Standard Million.

Colorectal Cancer continued

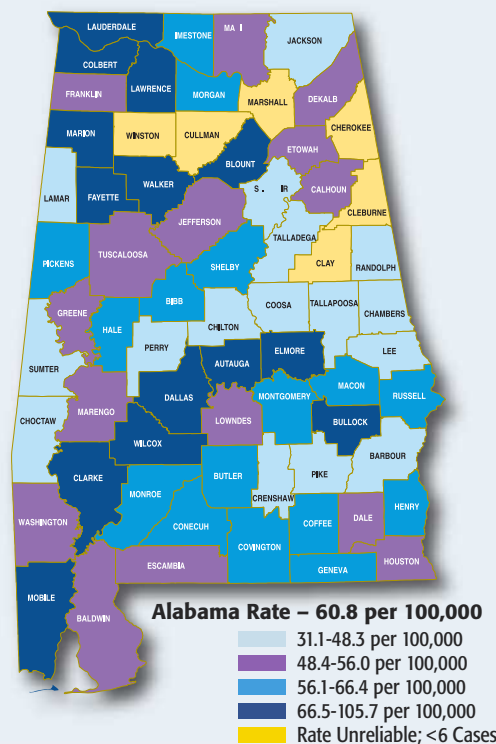
Further, in Alabama, blacks are significantly more likely to be diagnosed with late stage colorectal cancer than whites. Late stage colorectal cancer is the most serious form of the disease due to its advancement beyond the colon into other areas of the body. The percentage of late stage diagnoses in blacks from 2004-2008 was 45.1 percent vs. 39.2 percent in whites (J. George, Personal Communication, February 16, 2011).

Figure 7:
Alabama Cancer Incidence Rates, Colorectal Males and Females, White, 1998-2007



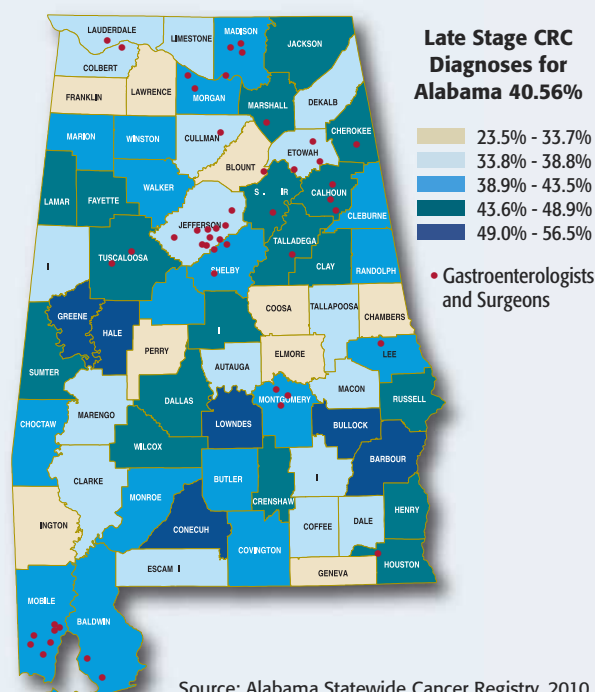
All rates are age-adjusted to the 2000 U.S. (19-age group) standard. County groupings were determined using standard quartiles.

Figure 8:
Alabama Cancer Incidence Rates, Colorectal Males and Females, Black, 1998-2007



All rates are age-adjusted to the 2000 U.S. (19-age group) standard. County groupings were determined using standard quartiles.

Figure 9:
Percentage Late Stage Colorectal Cancer Diagnoses, 2004-2008, with Location of Gastroenterologists and Colorectal Surgeons in Alabama



Source: Alabama Statewide Cancer Registry, 2010

CURRENT ACTIVITIES TO INCREASE COLORECTAL CANCER SCREENING

Alabama is one of 26 states and tribal organizations to receive a grant from the CDC for CRC prevention. The goal is to screen 80 percent of the population aged 50 and older by 2014. Intermediate outcomes include increased provider knowledge about the USPSTF and U.S. Multi-Service Task Force guidelines for CRC screening and surveillance, increased provider knowledge and improved attitudes about the importance of CRC screening, increased adoption of quality standards for CRC screening by health systems or individual providers and reduced patient barriers. The **Alabama FITWAY Colorectal Cancer Prevention Program**, based on the fecal immunochemical test (FIT), also includes limited screening services in approximately 20 counties for men and women who meet the eligibility requirements.

The FITWAY program has a website at www.adph.org/fitway that explains the goals of the program. Two thirds of the efforts are directed towards systems changes, policy changes and elimination of barriers to screening throughout the state. Partners such as the Alabama Quality Assurance Foundation, the Mitchell Cancer Institute, Southeast Regional Medical Center, Clearview Cancer Institute, the UAB Continuing Education Department, the UAB Comprehensive Cancer Center, the Alabama Primary Health Care Association and the Mid-South Region of the ACS have been champions in peer-to-peer education regarding the 2008 USPSTF guidelines and seeking systems changes that will achieve the 2014 goals. The ACS works diligently to educate worksites about the importance of adding CRC screening to insurance benefits and to provide peer-to-peer education.

A 2010 survey of physician screening practices funded by ADPH, commissioned by the Mitchell Cancer Institute and conducted by the USA Polling Group revealed important information about physician knowledge and educational preferences in the area of CRC screening, current practices in screening and strategies for educating patients about the need for screening. The respondents mirrored the target population of family medicine, internal medicine and obstetrics and gynecology doctors with a difference of no more than four percent on all demographic and geographic characteristics. Among the major findings were that physicians under-utilized and knew very little

about the USPSTF-recommended fecal immunochemical test (FIT) for CRC screening. Also, while 39 percent of physicians use an electronic health record system, only 15 percent used it as a reminder system. Patient reluctance and non-compliance were the chief obstacles to widespread screening in the physicians' opinions. Near-term goals for the FITWAY program include a partnership with the Federally Qualified Health Care Centers, statewide pricing for tests from manufacturers, expansion of partnerships statewide and extension of physician education and academic detailing.

One focus area within the **ACS** is the prevention and detection of colorectal cancer (CRC) as early as possible through increased screening rates, with emphasis on addressing the needs of the medically underserved and black populations. A recommended strategy to support this focus area is to change physician behavior. As a result of the ACS program, over 150 clinics and 1,500 providers in the Mid-South Division have made changes in their clinical systems. Most recently, the Mid-South's collaboration with the Alabama Quality Assurance Foundation (AQAF) in the 9th Scope of Work has resulted in a 40.3 percent increase in colorectal screenings among targeted providers.

As described in the Examples of Current Activities to Increase Breast And Cervical Cancer Screening, ACS Mid-South proposes to pilot a new **A Powerful Team** model based on providing centralized clinical systems change consulting, on-site prevention health advisors, accreditation programs and financial incentives for targeted primary care FQHC's throughout the division.

The ACS has an excellent resource for clinical quality improvement related to CRC Screening entitled, "How to Increase Colorectal Cancer Screening Rates in Practice: A Primary Care Clinician's Evidence-Based Toolkit and Guide." Created by clinicians for clinicians, this interactive Web-based toolbox can help improve colorectal cancer screening in actual practice. It provides state-of-the-science information, advice to help make screening practices more efficient and tools for use in practice. The manual can be accessed at <http://www.cancer.org/aspx/pcmanual/PCM.swf>, and ACS can provide in-depth training for recruited physician office staff on how best to incorporate the toolkit into practice.

Colorectal Cancer continued

ADVOCACY

As noted earlier, the Passage of the Breast, Cervical and Colorectal Cancer Awareness Act in 2010 (House Bill 600) provides that the ADPH shall establish programs for breast, cervical and colorectal cancer awareness and was effective January 1, 2011. There are multiple provisions within this Act which include screening for uninsured and underserved individuals throughout the state, raising public awareness and reducing morbidity and mortality. Implementations of the provisions within the act are dependent upon funding availability.

Table 17:

Evidence-based Interventions to Increase Screening

| INTERVENTION | BREAST CANCER | CERVICAL CANCER | COLORECTAL CANCER |
|--|-----------------------|-----------------------|-----------------------|
| Client reminders | Recommended | Recommended | Recommended |
| Client incentives | Insufficient Evidence | Insufficient Evidence | Insufficient Evidence |
| Small media | Recommended | Recommended | Recommended |
| Mass media | Insufficient Evidence | Insufficient Evidence | Insufficient Evidence |
| Group education | Insufficient Evidence | Insufficient Evidence | Insufficient Evidence |
| One-to-one education | Recommended | Recommended | Insufficient Evidence |
| Reducing structural barriers | Recommended | Insufficient Evidence | Recommended |
| Reducing out-of-pocket costs | Recommended | Insufficient Evidence | Insufficient Evidence |
| PROVIDER-ORIENTED SCREENING INTERVENTIONS | | | |
| Provider assessment and feedback | Recommended | | |
| Provider incentives | Insufficient Evidence | | |
| Provider reminders and recall | Recommended | | |

<http://www.thecommunityguide.org> Last updated June 2, 2010

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Colorectal Cancer

Goal: *Decrease the incidence and mortality of colorectal cancer through education, screening and early detection.*

C-AL-2011-2015-7

By 2015, increase by 10.9% the proportion of Alabama men and women age 50 and older who have had a FOBT, sigmoidoscopy, or colonoscopy.

- Baseline: 69.1%
- Target: 80.0%
- Information source: 2008 BRFSS: 21.3% of adults age 50 and older report having a fecal occult blood stool test in the past 2 years, 60.7% of adults age 50 and older report ever having a sigmoidoscopy or colonoscopy, 69.1% report having an unduplicated count.

Strategies:

- Increase media exposure addressing the importance of screening, early detection and treatment.
- Encourage Alabamians to be proactive about discussing colorectal cancer screening with their health care professional.
- Educate the insured population about the Patient Protection and Affordable Care Act that requires healthcare plans to provide preventive services and eliminate cost sharing without charging a deductible or co-pay.
- Educate Alabamians and health care providers about high specificity and sensitivity take home screening tests.

C-AL-2011-2015-8

By 2015, increase by 6.0% the proportion of Alabama colorectal cancer cases diagnosed as early stage (in situ or localized) disease.

- Baseline: 49.0%
- Target: 55.0%
- Information source: ASCR

Strategies:

- Target major employers and state employees for worksite wellness screening initiatives.
- Encourage health care providers to use patient querying and electronic medical records to find patients past due for CRC screenings.
- Encourage CRC screening questions to become a part of the patient intake process.
- Work with primary care providers to reduce barriers and improve adherence to CRC screening.

C-AL-2011-2015-9

By 2015, increase by 10.0% the proportion of primary care, internal medicine and Ob/Gyn providers who regularly perform colorectal cancer screening tests according to the USPSTF guidelines.

- Baseline: 55.0%
- Target: 65.0%
- Information source: USA Polling Group Survey of Physician Screening Practices 2010

Strategies:

- Educate health care providers about the inadequacy of in office stool tests.
- Promote peer-to-peer educational opportunities about the USPSTF, the USMSTF and the FIT.
- Achieve reimbursement from Blue Cross Blue Shield of Alabama for all levels of physician laboratory status.
- Increase health providers' knowledge about the USPSTF guidelines for CRC screening and the benefits of screening patients who have barriers to colonoscopy with high sensitivity fecal immunochemical tests.
- Work with insurance providers, AQA, ACS, cancer centers and other partners to enhance physician quality assurance standards for CRC screening.

C-AL-2011-2015-10

By 2015, increase by 9.0% the percentage of primary care, internal medicine and Ob/Gyn providers who self report "a lot" of knowledge of the FIT.

- Baseline: 11.0%
- Target: 20.0%
- Information source: USA Polling Group Survey of Physician Screening Practices 2010

Strategies:

- Use academic detailing at physician offices to explain the benefits of high sensitivity fecal immunochemical tests.
- Partner with health care systems to systematically adopt the FIT throughout their network of hospitals, clinics and providers.

Prostate Cancer

NATIONAL TRENDS AND SCREENING RECOMMENDATIONS

CDC distributes a pamphlet, *Prostate Cancer Screening: A Decision Guide* (2009), outlining increased risk for men with a father, brother or son who has had prostate cancer and higher risk in black men than white men. Prostate cancer is less common in Hispanic, Asian, Pacific-Islander and American Indian men than white men. Some prostate cancers grow more quickly than others. The more aggressive forms of prostate cancer can spread beyond the gland to other parts of the body, causing death. Slow growing forms of prostate cancer may never become a serious threat to health. Still, prostate cancer is the fifth leading cause of death in men over age 45, following heart disease, lung cancer, stroke and emphysema.

Experts know neither what causes prostate cancer, nor how to prevent it. Additionally, doctors have difficulty differentiating whether the cancer is aggressive with current technology. Medical experts disagree about prostate cancer screening. Those who encourage regular screening believe scientific evidence shows that finding and treating early state prostate cancer can be more effective. They recommend all men with a life expectancy of 10 years or more be offered a PSA test and DRE annually beginning at age 50 and earlier for blacks or those with a first-degree relative with prostate cancer. Experts opposed to routine screening believe prostate cancer may never affect a man's health and treatment could cause side effects of impotence and incontinence. They recommend that men should make their own screening decision (CDC, 2009).

ALABAMA TRENDS

Alabama's 1999-2008 prostate cancer mortality rate was 32.3 per 100,000 (age adjusted to the 2000 Standard population) and 22 percent higher than the United States prostate cancer mortality rate of 26.7 per 100,000 (ASC, ADPH, 2010). The median age of white and black males diagnosed with late stage prostate cancer was 65 years and 64 years, respectively. Beginning at age group 60-69 years, black males were more likely to be diagnosed at late stage than white males. Among the younger age groups, 40-49 and 50-59 years, white and black males were diagnosed at late stage at about the same rate. From 2004-2008 in Alabama, 85.5 percent of prostate cancer diagnoses which were staged were designated as early

stage cancers. However, when compared to white males, black males were significantly more likely to be diagnosed with late stage prostate cancer during that same period (J. George, Personal Communication, February 16, 2011).

EXAMPLES OF CURRENT ACTIVITIES TO INCREASE PROSTATE CANCER AWARENESS

Under Grant Award U58/DP000825 the **ACCCP** has received funding for a five year Prostate Additional Component. The first two years of funding were dedicated to educating physicians about the proceedings from the 2007 Alabama Prostate Summit facilitated by the **UAB Minority Health and Health Disparities Research Program**. Researchers, physicians, policy makers, community activists and the Coalition convened for a variety of prostate cancer issues anchored by keynote speaker and health literacy expert Kerry Kilbridge, M.D. Enduring materials were located at the UAB office of Continuing Education and DVDs linking to the site were sent to family practice, internal medicine and general practitioner physicians. Years three and four included a partnership with the Alabama Cooperative Extension System located at Auburn University to facilitate educational events throughout the state. The focuses were teaching general prostate education called "Prostate 101," fostering better communication between physicians and families, discussing active surveillance as a treatment option, dispelling common myths about prostate cancer and inviting survivors to share their experiences. On June 1, 2010, the Alabama Public Health Training Network produced a live broadcast, "Bridging the Communication Gap Between Physicians and Patients: Understanding Functional Health Literacy Issues Related to Prostate Cancer," educating physicians and patients about the importance of clear communication when discussing health related issues.

Understanding prostate cancer risk, especially in black men, and personally disheartened by the higher death rate in Alabama compared to the nation, Dr. Thomas Moody of **The Urology Centers of Alabama** began a partnership with Ashvin Parik and Ziba Anderson in Perry and Wilcox counties. Since 2006 Dr. Moody has been bringing a team of physicians and nurses to these county health departments to screen men every fall at no charge. If needed, men are offered biopsies, treatment and post surgical care, free of charge, from the Urology Centers of Alabama and a network of colleagues and hospitals. This

unique partnership with the county health departments has grown to include Marengo, Dallas, Jefferson, Hale, Sumter, Butler, Pike, Bullock, Monroe and Choctaw counties. Of the screenings from 2006 through 2010, 13 percent of the men were found to have abnormalities.

In 2009, the Alabama Legislature began adding a line item in the budget for approximately \$90,000 to fund prostate cancer screenings. The Cancer Prevention Program issues requests for proposals from **ACCC** members and other state contractors to screen underserved men. Through this effort, in particular, the **Alabama Primary Health Care Association** has had extensive impact raising the awareness and attention across the state. In the last two years they have facilitated screenings at Federally Qualified Health Care Centers and Community Health Centers that resulted in over 1,500 men being screened who normally would have not been screened. Their impact reached approximately 50 counties across the state.

DISPARITIES

Data retrieved from *Alabama Cancer Facts and Figures 2010* show that black males have a significantly higher incidence rate and mortality rate of prostate cancer than white males. From 1999-2008, the incidence rate in Alabama for black males is 229.1 per 100,000 and 131.1 per 100,000 for their white male counterparts. During that same time span the mortality rate for blacks was almost three times as high as the rate for whites (70.0 per 100,000 for blacks versus 24.3 per 100,000 for whites, age-adjusted to the 2000 Standard Million). The higher incidence of prostate cancer in black men compared with men from other racial/ethnic groups lead many to believe that genetic factors might account, in part, for the observed differences. Recent findings from NCI's Cancer Genetic Markers of Susceptibility (CGEMS) program and other investigations support this hypothesis. Researchers have identified changes, called variants, in human DNA that are associated with the risk of developing prostate

cancer. Different combinations of these variants have been found in men from different racial/ethnic backgrounds, and each combination is associated with higher or lower risk for prostate cancer. Nearly all of the variants associated with an increased risk of developing prostate cancer were found most often in black men, and certain combinations of these variants were associated with a five-fold increased risk of prostate cancer (Haiman, 2007).

ACCC member Timothy Turner, Ph.D., is a Professor of Biology at **Tuskegee University**. In addition, he is the Deputy Director of Research and Training in the Tuskegee University National Center for Bioethics in Research and Health Care and the Associate Director of Tuskegee University's Project EXPORT.

Dr. Turner's research interest is the reduction of the current prostate cancer health disparity in black men. His research focuses on identifying and disrupting signaling mechanisms involved in the progression of prostate cancer to its invasive and metastatic stages. The Turner lab is currently exploring the use of a magnetic-based guided drug delivery system for cancer drugs. These research projects will identify unique intracellular signaling pathways that can be targeted by novel anticancer drugs and therapies.

In addition to genetic factors, research has also shown that disparities for prostate cancer exist because of a lack of health insurance coverage and limited access to healthcare services. These barriers prevent screening and early diagnosis of the disease resulting in higher incidence and mortality rates (Talcott, 2007).

ADVOCACY

In 2010, the **ACCCP** launched a website, Prostate Services in Alabama, at <http://adph.org/prostate> to capture prostate health efforts across the state, to serve as a prostate health clearinghouse and to promote discussions between patients and providers. Dates and locations for free screenings are posted on the website.

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Prostate Cancer

Goal: *Alabama men will make informed decisions regarding prostate cancer screening and treatment.*

C-AL-2011-2015-11

Educate Alabama men aged 40 and older about prostate cancer screening and treatment options.

- Baseline: Developmental
- Target: Developmental
- Information source: BRFSS

Strategies:

- Serve as a clearinghouse for prostate cancer information through the website, community partnerships, faith-based groups and men's social networks.
- Raise public awareness about prostate cancer screening and treatment options.
- Raise public awareness about the higher risk for black men and men with a family history of prostate cancer.

C-AL-2011-2015-12

Promote the discussion between primary care providers and their patients about the benefits and risks associated with prostate cancer screenings.

Strategies:

- Educate physicians about the higher risks for blacks regarding prostate cancer.
- Educate physicians about new and emerging treatment alternatives.
- Improve health literacy and communication between physicians and their patients.

Melanoma

NATIONAL TRENDS AND SCREENING RECOMMENDATIONS

Recently, the recommendations for melanoma skin cancer screening have been updated. The USPSTF (2009) reviewed evidence published since 2001 on studies of screening effectiveness, the stage of detection by screening and the accuracy of whole-body examination by primary care clinicians and self-examination by patients. The USPSTF concluded that the current evidence is insufficient to assess the balance of benefits and harms of screening for skin cancer by primary care clinicians or by patient skin self-examination.

ALABAMA TRENDS

Variation in melanoma exists by region in part due to ultraviolet radiation exposure (ACS, ADPH, 2010). However, recent reports have also identified ethnic subgroups in the southern U.S. that are at a higher risk of invasive melanoma. A study in the *Archives of Dermatology* showed a higher risk of melanoma among male Hispanics compared to the national data (Rauhani, 2010).

DISPARITIES

Emerging disease risk in racial/ethnic subgroups needs to be examined for invasive melanoma. In addition, the rise in melanoma among young women is a cause for concern (Bradford, 2010).

EXAMPLES OF CURRENT ACTIVITIES TO INCREASE MELANOMA SCREENING

The members of the **Mitchell Cancer Institute (MCI)**, located on the campus of The University of South Alabama in Mobile, produced an educational DVD in 2009 on prevention of several types of cancer, including melanoma. This DVD is being distributed to schools and physicians' offices throughout an eight-county region in the southern

portion of the state. Nurses who view the entire program may be eligible for continuing education credits, and many physicians' offices are opting to play the DVD on their waiting room televisions for patient education.

Representatives from the MCI also plan to visit between two and five agencies per month in south Alabama to encourage participation in skin cancer screenings and other preventive measures.

Recognizing that outdoor sporting events are an excellent venue for educating the public on the links between sun exposure and skin cancer, representatives from the **ACCCC** set up booths at two Ladies Professional Golf Association (LPGA) tournaments taking place along Alabama's renowned Robert Trent Jones Golf Trail. The **ACCCC** used this opportunity to distribute educational literature about skin cancer, as well as promotional items and sunscreen to those attending the events in 2009, 2010 and 2011.

The **ACCCC** followed up this successful endeavor in 2010 with a trip to Birmingham's Ross Bridge for the Professional Golf Association's (PGA) Senior Masters Tournament. By the end of 2010, volunteer dermatologists from the community and the UAB Department of Dermatology, representing the American Academy of Dermatology and the Women's Academy of Dermatology, offered screenings during five different PGA tournaments and secured thousands of samples of sunscreen for the public.

ADVOCACY

As described under ultraviolet radiation, continued efforts will be directed toward early detection and prevention of skin cancer as well as awareness of the link between tanning bed use and skin cancer.

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Melanoma

Goal: *Increase public awareness of the importance of detection of melanomas to increase the number of melanomas diagnosed at an early stage.*

C-AL-2011-2015-13

Increase the number of melanomas detected in situ by physicians

- Baseline: 3,929
- Target: 5,000
- Information source: ASCR

Strategies:

- Promote programs that screen for skin cancer at large outdoor events throughout the state.
- Encourage dermatologist to offer free skin cancer screenings.

C-AL-2011-2015-14

Increase the percentage of melanomas detected early (less than or equal to 1.00mm Breslow depth) by physicians.

- Baseline: 33.4%
- Target: 44.0%
- Information source: ASCR

Strategies:

- Promote programs that screen for skin cancer at large outdoor events throughout the state.
- Encourage dermatologist to offer free skin cancer screenings.

TERTIARY PREVENTION: TREATMENT

Our Overall Goal

Quality services and programs for cancer treatment, life-long follow-up care and end-of-life care will be accessible and geographically available to all Alabamians.

Genomics

NATIONAL TRENDS

Genomics is an emerging field that plays a vital role in cancer research and treatment. Using genetics to better identify people with a predisposition to cancer and using preventive measures in order to either prevent the disease altogether or significantly decrease its impact upon the patient has been seen, for example, with breast and ovarian cancer. Some women carry variations of the breast cancer genes called BRCA1 and BRCA2 that indicate an inherited risk for some types of breast and ovarian cancers; BRCA testing looks for the variations that increase a person's risk for getting these cancers. Despite the high profile of genomic discovery, little attention is focused on how genomic information is translated into public health applications (McBride, 2010).

The American Society of Clinical Oncology recommends that cancer risk assessment be considered in the practice of oncology and preventive medicine (Irwin, 2005). Despite the increased availability of genetic testing, the clinical utility of genetic testing must be evaluated within the healthcare setting. Although professional organizations recommend that people who want genetic testing should be referred to a genetic counselor, there are not enough genetic counselors practicing in the U.S. Many regions are underserved in regard to this specialty. Effective ways to deliver information about cancer risk and genetic testing are needed. Developing various multimedia methods such as computer-based risk assessment would fill this need.

Genomics can be used to further understand cancer relationships with certain treatments and why some treatments may or may not be effective. DNA damage accumulated over time accounts for most cancers. Changes in genes that control cell growth and division lead to the uncontrolled growth of cells, resulting in cancer. Mutated genes called oncogenes develop through changes in the genes that stimulate cells to divide. These mutations increase cell division. Also, tumor suppressing genes which normally produce proteins

that block the division of cells can mutate, leading to uncontrolled cell division. Two cancers that look alike may differ on a molecular level and differ in their responses to certain treatments. Researchers are studying the molecular makeup of different cancers in order to determine effective therapies for specific genetic variations (Lamb, 2008). A recent survey conducted by Medco Health Solutions and the American Medical Association found that although 98 percent of the physicians surveyed agreed that genetic profiles may influence drug therapy, only 10 percent believed that they were adequately informed about pharmacogenomics, the study of genetic characteristics related to drug response (Medco, 2009).

Currently there is insufficient evidence to recommend genetic risk counseling by the Community Guide; with newer testing methods and lower costs, geonomics will be continually expanding. Additional education for physicians about pharmacogenomics may foster broader adoption of genetic testing.

EXAMPLES OF CURRENT ACTIVITIES TO INCREASE GENOMIC ADVANCES IN ALABAMA

At **Clearview Cancer Institute** in Huntsville, patients with a family history of cancer receive genetic counseling and testing. By identifying gene mutations that may be passed from generation to generation, doctors can let family members know who should be screened for cancer more frequently or at a younger age. Genomic testing is also done on actual cancer tissues, enabling patients to maximize their chances for a cure and minimize toxicity.

The **HudsonAlpha Institute for Biotechnology** in Cummings Research Park, the nation's second largest research park, located in Huntsville, is focused on genomics-based research to improve human health and well being. Jim Hudson was an integral partner in the Human Genome Project coordinated by the U.S. Department of Energy and the National Institutes of Health. Dr. Rick

(continued on next page)

Genomics continued

Myers, professor and chair of genetics at the Stanford University School of Medicine and director of the Stanford Human Genome Center was named director of the HudsonAlpha Institute in 2007. Researchers at HudsonAlpha Institute are currently using next-generation sequencing technology to examine molecular-level differences between cancerous and non-cancerous tissues. This research may lead to the identification of biomarkers that can be used for early cancer diagnosis, biomarkers for tumors with poor prognosis and genes that new and existing drugs may target. In addition, HudsonAlpha is creating a data resource that can help doctors and patients make more informed decisions about the most effective treatments available.

Coalition member Lewis Pannell, Ph.D., Head of the **Proteomics and Mass Spectrometry Laboratory** at the USA Mitchell Cancer Institute, is focused on the identification of biomarkers of cancer. Biomarkers allow for the "early detection" of cancerous cells, thus giving more treatment options for the patient, and a more hopeful prognosis. Their first research effort focuses on the analysis of PSA as a prostate cancer marker. It is well accepted that this test is not specific for cancer and can be elevated under a number of conditions such as benign prostatic hyperplasia. Their research has focused on the analysis of the glycan attached to the PSA and the changes in the structure of the glycan patterns in cancer. The combination of glycan structures on the PSA could provide a much better marker for prostate cancer.

Dr. Pannell's research group has also teamed with the MCI's gynecologic clinic to develop biomarkers for endometrial and ovarian cancer. Methods for the early detection of endometrial cancer, when the disease may be treated and controlled, can allow child bearing by delaying a hysterectomy. Although no recommended tests for ovarian cancer exist, tests are being developed. For the past three years the team, including Dr. Michael Finan who also serves on the Medical Advisory Panel of the ABCCEDP, has collected over 2000 specific samples from both cancer patients and healthy controls to use in the development of the biomarkers. A business has licensed the rights to the patents and is currently taking the first steps towards commercializing the endometrial cancer test. This business came in second place in the 2009 Alabama Launchpad competition supporting some of the most promising university based technology in Alabama. The Pannell research group is anticipating funding from NIH to further the ovarian test which may provide detection in early stage ovarian cancer when the prognosis is better.

Most recently they have begun a new approach to the screening and early detection of colorectal cancer which parallels the endeavors of the **ACCCC** to provide screening to the underserved and minority populations of Alabama. The approach is quite different to the fecal occult test already in use. This approach has already sparked commercial interest.

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Genomics

Goal: *All cancer cases in Alabama will be provided with genetic counseling where appropriate.*

TR-AL-2011-2015-1

Determine the proportion of women diagnosed with breast and/or ovarian cancer that have a family history of cancer and receive genetic counseling.

- Baseline: To be developed
 - Target: To be developed
 - Information source: National Health Interview Survey, CDC
- Strategies:
- Develop tools to query all state centers that treat women with Breast and/or Ovarian Cancer.
 - Establish the baseline metric for genetic counseling for women with Breast and/or Ovarian Cancer.

TR-AL-2011-2015-2

American College of Surgeons Commission on Cancer (ACOS CoC) designated clinical oncology cancer centers will provide cancer genetic counseling and screening detection information to all appropriate cancer patients.

- Information source: ACOS CoC cancer centers have electronic guides to assist with genetic counseling.
- Strategies:
- Promote programs that enhance public knowledge of the importance of knowing family history of cancer and communicating that information to their health care provider.
 - Promote access to and use of genetic screening for at risk populations.

Patient Navigation

NATIONAL TRENDS

The availability, accessibility and affordability of high-quality care and treatment are critical for persons diagnosed with cancer. CDC (2010) has increasingly emphasized the importance of patient navigation, particularly for the Breast and Cervical Cancer Early Detection Program and the National Colorectal Cancer Prevention Program, as a strategy to overcome the barriers patients encounter in obtaining timely and quality medical care, including access to screening. While patient navigation can be helpful to any individual screened for or diagnosed with cancer, it may be a particularly important tool in decreasing health disparities in groups that have difficulty accessing healthcare services or limited knowledge of the healthcare system.

The model developed by Harold P. Freeman, M.D., in 1990 to eliminate barriers to cancer screening, diagnosis, treatment and supportive care for breast cancer has been expanded to include timely movement of an individual across the entire healthcare continuum. Today patient navigation can be broadly defined to focus on barriers, service provision or a combination of both. The ACS in collaboration with AstraZeneca, AVON Foundation, CDC, LIVESTRONG and the Susan G. Komen Foundation, for example, all fund cancer patient navigation programs in a variety of settings, such as hospitals, clinics, cancer centers and the community. Evidence-based guidelines currently exist for the treatment of cancer, established by the National Comprehensive Cancer Network (NCCN) (<http://www.nccn.org>) and the American Society for Clinical Oncology (<http://www.asco.org>).

Types of navigation can vary depending on the scope of the program. For instance, outreach navigation involves patient recruitment and ends with preventive screenings, diagnostic navigation starts with abnormal findings and continues through diagnostic resolution and treatment navigation begins with the cancer diagnosis and continues through completion of treatment.

Patient navigators help individual patients improve their access to and understanding of their health care. Known navigator categories have included individuals hired from the community the program serves who have no professional training (often called lay navigators or community health advisors) and clinical or professional navigators, often nurses or social workers. Lay navigators are familiar with the community and understand the issues and the local dialect. Professional navigators can address certain issues such as psychosocial issues and explain/interpret complex medical procedures.

The diversity of patient navigation programs makes it difficult to assess the effectiveness of patient navigation, and more research needs to be done in this area. However, studies have shown that patient navigation can increase adherence to cancer screening and treatment guidelines. Greater adherence to these guidelines could improve mortality rates and reduce health disparities. For example, patient navigation has been shown to improve adherence to breast cancer screening and treatment guidelines. After a first diagnosis of breast cancer, black women have a greater mortality rate than white women, due in part to differences in screening rates and follow-up treatment. Patient navigators can reduce this disparity by ensuring that all women receive adequate care (Robinson-White, 2010).

Similarly, patient navigation has been shown to increase colonoscopy screening compliance in low-income minorities. Colorectal cancer screening rates are unequal between whites and minorities, with lower rates among Hispanics and blacks. By reducing barriers to screening, such as socio-economic factors, communication problems due to language differences and cultural differences, patient navigation may lead to greater overall colorectal cancer screening rates, reducing the disparities in screening rates (Christie, 2008).

The primary goals of the **ACCC** for treatment include supporting policy and system changes that ensure Alabamians have access to quality cancer treatment through appropriate protocols and referral systems. It is necessary to continue to support cancer patient navigator and community health worker programs and to link cancer control with other chronic disease activities by integrating patient navigator programs.

EXAMPLES OF CURRENT ACTIVITIES TO IMPROVE CANCER TREATMENT IN ALABAMIANS

The **ACS Patient Navigator Program** is a new component of a broader navigation system offered by the ACS. The ACS Patient Navigator Program involves strategically placing trained personnel in local healthcare facilities with oncology treatment services. The UAB Comprehensive Cancer Center was the first center in the south to receive approval for a patient navigator. The UAB Comprehensive Cancer Center was selected through a national search, based on criteria to maximize organizational collaboration and outreach efforts to the medically underserved.

Since the inception of the program at UAB, the ACS has used the Patient Navigator Program

to assist newly diagnosed cancer patients and reach underserved populations. ACS Patient Navigators:

- Provide ACS and /or host facility approved cancer information to patients and their caregivers including literature on diagnosis, treatment, prevention and end of life care and ACS services.
- Assist with practical problem solving related to concrete needs such as housing and transportation.
- Facilitate links to ACS and community resources for the cancer patient, their caregivers and families.
- Encourage the cancer survivors and their caregivers to become advocates in their care and participate in ACS and community support groups, when appropriate.
- Educate patients and caregivers about the availability of the ACS's free clinical trials matching service and treatment decision-making tools.
- Develop strong partnerships with collaborating institutions' management and staff and ensure that the host facility staff is aware of and participate in ACS activities, when appropriate.
- Promote early detection and diagnosis of cancer through provision of ACS literature and other resources.
- Assist physicians and other health care providers in educating newly diagnosed cancer patients and their caregivers by providing ACS and other approved literature.
- Provide support and information to engage patients in their treatment process.

Furthermore, in an effort to reach underserved populations, the ACS provides services through Cancer Resource Centers. Ninety-eight percent of the Mid-South has been identified as a Medically Underserved Area (MUA). In MUAs, including the Black Belt of Alabama, the most significant health disparities are seen. In general, the people living in these regions are more likely to live in poverty, have low educational attainment and be geographically isolated from major metropolitan areas. Unfortunately, the majority of Commission on Cancer (CoC) facilities and medical services are located outside of these areas. Recognizing this gap, the ACS Mid-South Division has identified a need for Cancer Resource Centers in community based hospitals in these geographically and economically disparate areas.

ACS Cancer Resource Centers are designated spaces within the community where trained and

certified ACS volunteers provide support and resources to cancer patients, their family members and caregivers through the delivery of cancer information, ACS programs and services, referrals to community resources and immediate access to www.cancer.org and 1.800.227.2345. Targets have been identified to strategically place the Cancer Resource Centers in rural locations which lack easy access to major treatment facilities with the goal of reaching the geographically and economically deprived.

East Alabama Medical Center (EAMC) – The **Cancer Center of East Alabama** has received an "Approval Award with Commendations" and is accredited by the American College of Surgeons Commission on Cancer as a Community Hospital Cancer Program. Examples of breast cancer support at EAMC are a certified breast health navigator and an oncology social worker on staff to provide patient care that goes beyond the clinical.

The breast health navigator is the one person who patients can call about anything related to their diagnosis and is a primary point of contact throughout treatment. Along with the health care team, the breast health navigator's role is to:

- Help understand what to expect.
- Answer questions.
- Help coordinate care.
- Provide information about further testing procedures that the physician ordered.
- Help schedule appointments.
- Help understand health care and treatment choices.
- Help the family understand the diagnosis and treatment.
- Provide support to help cope.
- Inform about the services and resources that may be needed, both at EAMC and in the community.
- Keep the physician informed about care.
- Provide resources and education about breast health to the community.
- Help medically underserved women receive the screening and diagnostic procedures they need, as well as treatment if necessary.

The oncology social worker helps people work through new emotions as they begin living with cancer. Adjustments include doctor's appointments, testing and treatment, accessing financial resources, understanding new roles and responsibilities and life after treatment. The social worker assists with these concerns and makes referrals to outside agencies as needed.

Patient Navigation continued

Patient navigators at **MCI** help patients with psycho-social support, treatment decision making, insurance, resources and services, treatment completion and follow-up. They provide education and emotional support to both patients and their family members. By working with a patient navigator at MCI, patients and their families can experience smoother transitions across all phases of care, which result in fewer delays in treatment, improved communication between caregivers and less confusion for patients and their families. Patient navigators at MCI assist patients in the areas of education, support groups, transportation, social services, Medicaid information, nutrition counseling, prescription assistance, physician referrals, hospice referrals, pastoral care and financial assessment and resources (MCI, 2010).

At **Baptist Breast Health Center**, a breast patient navigator assists patients with understanding the importance of their continuum of care. The breast navigator guides the patient by knowing how to contact the appropriate individuals on staff or outside of the hospital for services and support throughout various stages of care. Appointments with surgeons and oncologists, along with any additional testing prior to surgery or neoadjuvant therapy, are made for the patient. The breast navigator's role also includes identifying resources available to patients and empowering them to become informed participants in their breast health and cancer care program.

UAB Comprehensive Cancer Center has a free patient navigator service for patients. Navigators at UAB help patients overcome health care, financial, physical, informational, educational, social, emotional and transportation barriers to treatment. An ACS Patient Navigator is located in The Kirklin Clinic Patient Resource Library. This Patient Navigator contacts cancer patients and their caregivers to teach them about the resources available to them from the ACS, the UAB Comprehensive Cancer Center and their community. The ACS navigator also provides cancer patients and their caregivers with information (booklets, pamphlets,

etc.), support programs (Look Good, Feel Better, Man to Man, Touch etc.) and services (wigs, scarves, housing, etc.) and ensures that any additional needs for the patient are met (UAB, 2010).

Minority Health & Health Disparities Research Center – The Community Health Advisors in Action Program (CHAAP), funded by the Avon Foundation, under Principal Investigator Mona Fouad, M.D., MPH, is a pilot study that uses trained community volunteers to assist underserved women who receive an abnormal breast cancer screen in adhering to follow-up recommendations from their physicians. The purpose of this project is to develop, implement and evaluate a community-based intervention to reduce the disparity in breast cancer mortality in underserved and low-income women. The program assists women who have been screened for breast cancer and found to have an abnormal test or confirmed diagnosis of breast cancer by helping them access appropriate care and adhere to recommended medical follow-up and/or treatment. The intervention is based on the community empowerment and Community Health Advisors Network (CHAN) models. A network of community volunteers are trained to serve as health system navigators to support women who are in need of case management or peer navigation services. The targeted women are medically underserved individuals who reside in four selected counties in Alabama.

In 2010, the **ABCCEDP**, in cooperation with the Marshall County Health Department (MCHD) and the ADPH Women's Health Division Social Work Unit, was awarded a 21 month grant called the Patient Care Coordination Demonstration Project. The Project seeks to expand ABCCEDP case management and patient navigator activities. A patient navigator will serve women age 40-64 who have no insurance and are at or below 200 percent of the poverty level and provide targeted outreach to the underserved Hispanic/Latino population in Marshall County. The program will also develop and implement a breast and cervical cancer patient navigation training curriculum.

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Patient Navigation

Goal: *All Alabamians diagnosed with cancer will have access to appropriate cancer treatment and care.*

TR-AL-2011-2015-3

Increase access and utilization of patient navigation and support services.

- Baseline: Developmental
- Target: Developmental

Strategies:

- Promote the use of cancer treatment resources for low-income patients who are under or uninsured.
- Disseminate information about low-or no-cost treatment resources to community groups, social organizations and health care professionals.
- Disseminate information about transportation services.
- Identify and promote collaboration to address transportation service gaps, including access to pharmacies.
- Support the development of interventions, such as patient navigators and care coordination programs to ensure that cancer patients and survivors receive the assistance they require.

TR-AL-2011-2015-4

Increase awareness and utilization by oncology health-care providers of evidence-based guidelines for cancer care that have been developed by national organizations.

- Baseline: Developmental
- Target: Developmental

Strategies:

- Educate health care professionals and the public about the clinical guidelines for cancer treatment and care.
- Disseminate treatment guidelines provided by National Cancer Institute and ACS and the American Society for Clinical Oncology.
- Support efforts to educate cancer patients and survivors on the importance of physical activity and nutrition following treatment.

Increase number of hospitals in Alabama that participate in American College of Surgeons CoC approval program.

- Baseline: Developmental
- Target: Developmental

Strategies:

- Increase public awareness about the benefits of obtaining treatment from ACOS accredited cancer facilities.

TR-AL-2011-2015-6

All children diagnosed with cancer are seen by pediatric oncologists.

- Baseline: Developmental
- Target: Developmental
- Information source: To be determined

Strategies:

- Increase awareness of health care providers and the general public about pediatric oncologists and their locations across the state.
- Develop educational tools to target both health care providers and the general public about the importance of screening and detection of pediatric cancers.
- Work with the Medical Association of the State of Alabama to devise a system to track compliance with follow-up screening or diagnostic recommendations for those who have abnormal screening tests results.

TR-AL-2011-2015-5

Clinical Trials

NATIONAL TRENDS

Integration and coordination of cancer care treatment are critical to successfully reducing the cancer burden in Alabama. In the words of **ACCCC** member Emily Pauli, Pharm.D., at Clearview Cancer Institute in Huntsville:

Much of the improvement in today's cancer treatment methods can be attributed to Clinical Research Trials, which help move scientific breakthroughs out of the laboratory and into physicians' offices and cancer centers, where they can be used and observed in real-world applications. They consist of organized studies conducted with volunteers to provide specific answers about a new cancer treatment, or to find new ways of using established treatments. Clinical trials help doctors and the companies who make cancer medicines pinpoint the most effective means to treat specific types of cancer. Likewise, clinical trials enable patients to have access to innovative approaches to prevention, early detection and treatment of cancer (E. Pauli, Personal Communication, March 5, 2011).

The major holdup in making new cancer drugs available is the time it takes to complete clinical trials themselves. On average, about eight years pass from the time a cancer drug enters clinical trials until it receives approval from regulatory agencies for sale to the public. Additionally, a new cancer drug has, on average, six years of research behind it before it even makes it to clinical trials (Crossley, 2010). Clinical trials take place in four distinct phases:

Phase 1: First-time human testing to determine dosage and safety of the agent.

Phase 2: Increased human testing to further assess safety and tolerability of the agent.

Phase 3: Widespread human testing to determine efficacy and further evaluate safety of the agent.

Phase 4: Post-market studies of the drug (E. Pauli, Personal Communication, March 5, 2011).

The biggest barrier to completing studies is the shortage and diversity of individuals who take part. In the case of cancer patients, fewer than five percent of adults with cancer will participate in drug trials. Many medicines are delayed getting approved because the number of participants is so low.

The MCI, a dedicated **ACCCC** partner, eloquently explains the benefits of a clinical trial on its website. It states:

Patients take part in clinical trials for many reasons. Usually, they hope for benefits for themselves. They may hope for a cure of disease, a longer time to live and a way to feel better. Often they want to contribute to a research effort that

may help others. Based on what researchers learn from laboratory studies, and sometimes earlier clinical studies and standard treatments as well, they design a trial to see if a new treatment will improve on current treatments. The hope is that it will. Often researchers use standard treatments as the building blocks to design better treatments. Researchers involved in a study have reason to believe that it will be as good as, or better than, current treatments. The patients in a clinical trial are among the first to receive new research treatments before they are widely available. The patients who take part in clinical trial procedures that do prove to be better treatments have the first chance to benefit from them (Mitchell Cancer Institute, 2010).

DISPARITIES

The majority of participants in clinical trials are white married men. Unfortunately, minorities, older adults and patients in rural areas are particularly under-represented in clinical trials. Minority participation in clinical trials for treatment is important to ensure generalizability of the study results to the target populations. The majority of therapeutic agents have not been tested on minority populations to the extent that they have been tested in the general population. In order to increase the generalizability of various agents to subgroups, more minorities need to be enrolled in clinical trials.

According to the US Department of Health and Human Services Office of Minority Health, racial minorities "were reluctant to participate," regardless of their knowledge about trials. Research to explain the low participation of minorities in clinical trials has suggested various factors such as low literacy, cost or lack of health insurance, lack of awareness and invitation, language differences and mistrust (Curley, 2007). This reluctance to participate can result in skewed findings or the cancellation of the clinical trial, because enough people were not recruited.

People who take part in clinical trials have certain responsibilities, but the majority appreciate the compassionate care and extra attention they receive. A 2005 survey of over 1,700 people with cancer on their awareness and attitudes about clinical trials found only a few had taken part in clinical trials. But most of those who did were very satisfied: 96 percent said they were treated with dignity and respect, 92 percent said they had a positive experience and 91 percent would recommend that family or friends take part in a clinical trial if faced with cancer (Crossley, 2010).

Project I.M.P.A.C.T. is a program of the National Medical Association to encourage greater participation of blacks in all aspects of biomedical research and clinical trials. The National Medical Association has long recognized that the lack of involvement by blacks and other people of color in clinical trials has contributed to health disparities. However, according to their website, black physicians and patients are underrepresented in research to find treatments for the very diseases that affect them. As explained in the genomics section, drugs are becoming more specific for people based on genetic understanding of the disease. Minorities must be a part of this pool from which drug targets are derived (National Medical Association, 2008).

EXAMPLES OF CURRENT ACTIVITIES TO IMPROVE ACCESS TO CLINICAL TRIALS IN ALABAMIANS

The **Clearview Cancer Institute**, with the support of the ADPH and the Russel Hill Cancer Foundation, recently finished building and certifying a new Phase 1 clinic in Huntsville. Doctors at this clinic will provide care to cancer patients while researching and testing new cancer treatments. Phase 1 studies are usually the first studies of a new drug that involve people. Although the treatment has been tested in lab and animal studies, the side effects in people cannot always be predicted. For this reason, these studies usually include a small number of people (15 to 50) and may be reserved for those who do not have other good treatment options. Because of the added expense of research trials, particularly Phase 1 trials, many cancer centers are no longer offering clinical testing. This addition to Clearview Cancer Institute will not only provide needed services to cancer patients in north Alabama, but also to patients across the nation.

Located in Mobile, **MCI** has multiple phase II and III clinical trials and quality of life observational studies for breast, colorectal, pancreatic, lung, ovarian, endometrial, melanoma, prostate and renal cancers. Dr. Hung Khong, Associate Director For Clinical Research, explains, "In order to successfully translate the discoveries of the 21st century we must continue to turn laboratory findings into effective cancer treatment in the clinic through full participation of both physicians and patients in clinical trials and through aggressive, ongoing research." (MCI, 2010).

The **ACS** Clinical Trials Matching Service is a free, confidential program that helps patients, their families and health care workers find cancer clinical trials most appropriate to a patient's medical and personal situation. Through a partnership with the Coalition of Cancer Cooperative Groups, ACS assists in finding research studies that are testing new drugs or methods to prevent, detect or treat cancer.

The ACS also has clinical trial specialists who are trained to answer questions about clinical trial participation and to open the door to treatment options available through research studies. These specialists are available 24 hours a day, 365 days a year.

Cancer Treatment Facilities from throughout the country can include their clinical trials in the program by completing some basic information about the trials at their facilities. Thus, patients can connect to clinical trials nationwide through this free and confidential service.

Providence Hospital, in Mobile, Alabama, is home to the Gulf Coast Minority-Based Community Clinical Oncology Program (MB-CCOP) funded by the National Cancer Institute. The MB-CCOP is one of only 15 programs in the nation and the only one in the state of Alabama. The NCI MB-CCOP network allows patients and physicians to participate in state-of-the-art clinical trials for cancer prevention and treatment, while remaining in their local communities.

Southern Cancer Center (SCC) is a nine partner medical oncology group, who provide the physician leadership for the MB-CCOP. Dr. Thaddeus Beeker is the principal investigator for the MB-CCOP program. Dr. Brian Heller is the principal investigator for the SCC pharmaceutical research program initiatives, which focus on phase 2 and 3 targeted therapy protocols. Cancer care has dramatically shifted in recent years as doctors have discovered more about the molecular and genetic aspects of cancer. Targeted therapeutics are at the heart of many new clinical trials as oncologists attempt to tailor specific treatments to specific cancers. SCC is the first site in the country to participate in a targeted therapy clinical trial for patients with the BRAF mutation in metastatic melanoma. Additional information about the MB-CCOP and SCC clinical trials are available at their website, www.gulfcoastcancerresearch.com (S. Deoliveira, Personal Communication, March 3, 2011).

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(continued on next page)

Clinical Trials

Goal: *Alabamians will have awareness and access to clinical trials in the state.*

TR-AL-2011-2015-7

Increase enrollment of minority populations in clinical trials.

- Information source: To be determined
- Strategies:
- Explore barriers to participation in clinical trials and develop tools to overcome these barriers.
 - Develop educational tools about clinical trials that are tailored to underrepresented populations groups.
 - Develop and evaluate strategies to access rural populations through information technology.

SURVIVORSHIP

For cancer survivors, the transition from treatment to survivorship is often a difficult one filled with many psychological and medical challenges. This phase of life following the diagnosis and treatment of cancer has gained increased recognition as of late, and the development of proper public health strategies to help survivors address these issues is critical. These strategies include identifying the needs and health status of cancer survivors, as well as involving caregivers in the evaluation of resources available for palliative and supportive care.

NATIONAL TRENDS

According to the ACS (2010), approximately 11.4 million Americans with a history of cancer were alive in January 2006. An estimated 1,529,560 new cases of cancer were diagnosed in 2010 with 789,620 males and 739,940 females diagnosed (ACS, 2010). Factors that contribute to the increase in cancer survivors include: improvements in prevention, early detection, treatment and targeted therapies along with the aging demographic of the United States, which places more individuals at risk for cancer (Meneses, 2010).

Issues in the quality of life of cancer survivors that might be lost in transition from treatment to survivorship will need to be considered in evaluation of these populations (Meneses, 2010). To address this needed information, survivorship questions have been added to the 2011 National Health Interview Survey. Evaluation measures that are needed for survivorship data include factors that affect the decision-making process of treatment and follow-up care.

To inform patients of their rights to determine their own medical care, ensure that these rights are communicated by the health care provider and encourage patients to complete advance directives, Congress enacted the Patient Self-Determination Act. Effective on December 1, 1991. This legislation requires health care institutions to advise patients on admission of their right to accept or refuse medical care and to execute an advance directive. Managed care organizations and home health care agencies must provide the same information to each of their members on members' enrollment. Provider organizations will also be required to:

1. Document whether patients have advance directives.

2. Implement advance directive policies.
3. Educate their staffs and communities about advance directives.

Compliance with the Act is a condition for Medicare and Medicaid reimbursement. The law ensures that patients can determine their own care through documents such as living wills and power of attorney in the event that they are incapacitated. Patient rights include:

1. The right to facilitate their own health care decisions.
2. The right to accept or refuse medical treatment.
3. The right to make an advance health care directive.

ALABAMA TRENDS

Three statewide associations, the Medical Association of the State of Alabama, the Alabama State Bar and the Alabama Hospital Association, with support from the ADPH and the Alabama Organ Center, have developed a statewide campaign to encourage people to discuss health care wishes with their families and document them now, rather than during a crisis. LIFEPLAN provides free comprehensive consumer guides as well as a copy of the new Alabama advance directive for healthcare at <http://www.alabar.org/public/lifeplan.cfm>.

An Advance Healthcare Planning Pamphlet is published by the Alabama State Bar as a public service. Copies of this pamphlet and others are available on the Alabama State Bar's website at: www.alabar.org/brochures.

The BRFSS is the world's largest ongoing telephone health survey. It has tracked health conditions and risk behaviors in the United States yearly since 1984. On the 2009 survey, every respondent was asked at least one of the following four questions:

- Have you ever been told by a doctor, nurse, or other health care professional that you had cancer?
- (If yes) At what age were you told that you had cancer?
- How many different types of cancer have you had?
- (If one) What type of cancer was it?
- (Or if more than one) With your most recent diagnosis of cancer, what type of cancer was it?

Survivorship continued

Approximately 13% of Alabamians have been diagnosed with at least one form of cancer. As seen in Figure 11, nearly 25% are between the ages of 51 to 60 at age of first diagnosis. About 3% have been diagnosed between the ages of 6 and 20. About 22% are first diagnosed between the ages of 21 and 40. As seen in Figure 12, 66% of all the people diagnosed with cancers in the BRFSS sample were diagnosed at or before age 60.

Figure 11:

Age at first diagnosis of Alabama cancer survivors, BRFSS respondents 2009

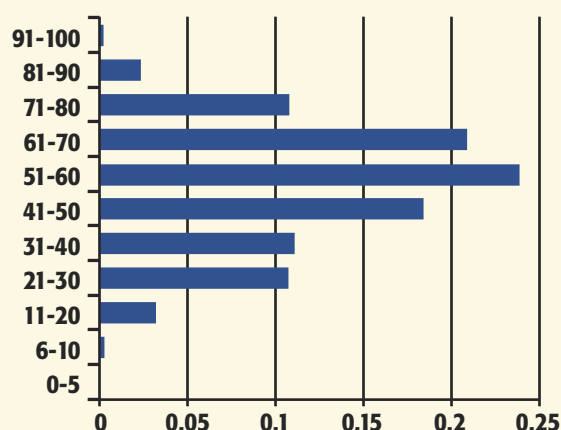
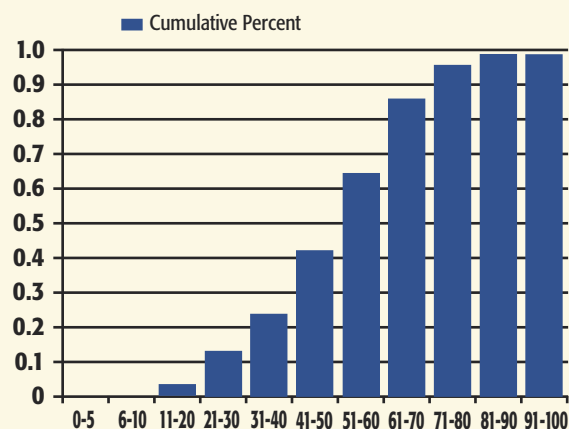


Figure 12:

Respondents who are cancer survivors by age at first diagnosis, cumulative percent, BRFSS 2009



These data are striking as so many of us think of cancer as being an old person's affliction. People being first diagnosed over the age of 70 comprised only 12.5 percent of the sample of survivors from the survey. Of current survivors in the sample, the median age at first diagnosis was 64 for lung cancer, 59 for colorectal cancer, 63 for prostate cancer and 55 for breast cancer.

EXAMPLES OF CURRENT ACTIVITIES TO IMPROVE THE HEALTH OF ALABAMIANS DIAGNOSED WITH CANCER

A report from the National Cancer Institute found that survivorship programs in comprehensive cancer centers include interdisciplinary teams that can provide focused, evidence-based care targeted to cancer survivors, activities for families and the community and research that can inform practice (Meneses, 2010). Alabama is fortunate to have a number of facilities offering these services to cancer patients and survivors, including:

The **USA-MCI** founded in 2000 in Mobile, Alabama, has its aim to achieve NCI Comprehensive Cancer Center designation within the next decade. Focusing on discovery and development of new and more effective treatments for cancer, the USA-MCI uses basic and translational research programs, clinical cancer treatment and community outreach to provide cancer care for the southeast region of the coastal US. This ambitious research endeavor with over \$125 million from the University of South Alabama and supported by the Mitchell family of Mobile is critical to cancer care across the northern Gulf Coast region.

All clinical and research programs of the MCI cultivate a spirit of collaboration between clinical care and basic and translational research. All oncology services are located in the same building where their physicians provide an interdisciplinary approach to each patient's treatment plan. Speaking about the collaboration to successfully develop a novel, early screening method for endometrial and ovarian cancer, two of the leading causes of death in women, MCI Executive Director and Abraham Mitchell Chair Dr. Michael Boyd said, "This project exemplifies MCI's mission commitment to improving cancer diagnosis, treatment and prevention through translational, 'bench-to-bedside' research and focusing our research and technology development efforts squarely on unmet needs in the oncology healthcare field."

MCI uses the CyberKnife® Robotic Radiosurgery System for patients who have inoperable or complex tumors that are not suitable for surgery. Beams of high-energy radiation can be delivered to the tumor from virtually any direction without anesthesia. It avoids damage to surrounding tissue and even autocorrects if the patient moves.

The **Clearview Cancer Institute and the Russel Hill Cancer Foundation (RHCF)** provide cancer care for patients in Northern Alabama. RHCF in Huntsville is a 501 (c) (3) non-profit organization, that

1. Provides funding for innovative cancer research.
2. Promotes cancer education in the community.
3. Assists eligible patients with uncovered costs of treatment.
4. Supports the development of improved communication among healthcare providers.

At Clearview Cancer Institute (CCI), cancer is treated with surgery, radiation therapy, chemotherapy, hormone therapy, or biological therapy. Patients with cancer are treated by a team of 150 highly-qualified oncology specialists. CCI has been involved in Clinical Research for over 20 years and they offers numerous clinical trials whereby patients receive innovative, state-of-the-art cancer care. They recently opened a Phase I Clinical Trial Suite to allow patients to try the newest drug therapies available. At CCI, the concept that a patient's genotype or genetic profile can be used to determine the medical care the patient needs is forefront. Genetic counseling is available to patients so that they can consider options to reduce or eliminate the risk of specific cancers. For more information about Clearview Cancer Institute and the Russel Hill Cancer Foundation visit

<http://www.clearviewcancer.com/index.php/home>.

Southeast Alabama Medical Center (SAMC) in Dothan, Alabama offers both inpatient and outpatient care for cancer patients. The Southeast Cancer Center has an experienced team of board certified physician specialists and oncology professionals who treat 800 newly diagnosed cancer patients each year. They have a 42-bed medical oncology unit providing advanced care for therapy, radiation procedures, symptom management and inpatient hospice care. All of their nursing staff are certified with the Oncology Nursing Society. Chemotherapy and infusion therapy is also provided for outpatients by specially trained nurses with advanced chemotherapy training. Cancer patients in this region now have new access to leading-edge clinical trials by being affiliated with the UAB Cancer Care Network. This partnership allows patients to stay at home while their clinical trial and initiatives are administered at SAMC.

SAMC's Cancer Services have been endorsed by the CoC as an approved oncology program, a recognition awarded to only one in four hospitals that treat cancer. SAMC's CoC approval is based on quality in the following areas listed on their website at <http://www.samc.org/>:

- Comprehensive cancer care offering a range of state-of-the-art services and equipment.
- A multi-specialty team approach to coordinate the latest treatment options available to cancer patients.
- Access to cancer-related information, education and support.
- A cancer registry that collects data on type and stage of cancers and treatment results, and offers lifelong patient follow-up.
- Ongoing monitoring and improvement of care.
- Information about ongoing clinical trials and new treatment options.

The **UAB Comprehensive Cancer Center** is one of 40 NCI designated centers in the country. The UAB Center received its designation nearly 40 years ago and was one of the first eight centers that met the rigorous NCI classification. A Comprehensive Cancer Center must be able to attack cancer in the laboratory and for the patient by prevention, research, new treatments, clinical trials, and providing leading-edge patient care and support to patients and their families. As such, the UAB Comprehensive Cancer Center has an international reputation for leading-edge discoveries, expert treatment and compassionate care. The team involves more than 330 physicians and researchers recognized for their expertise in oncology particularly in the fields of gene therapy, immunotherapy and drug discovery and development. They treat 5,000 new patients each year. The NCI has provided it with Specialized Program of Research Excellence (SPORE) grants in breast, pancreas and brain cancers and they also collaborates with Johns Hopkins University and the University of Colorado-Boulder on a fourth SPORE in cervical cancer. The Cancer Vaccine Development team is developing a series of cancer vaccine trials using genetically engineered vaccine reagents. For more information about the UAB Comprehensive Cancer Center visit <http://www3.ccc.uab.edu/>.

DISPARITIES

For most cancers, the survival experience is poorer for blacks compared to whites. This may be due to disparities in early detection or treatment, so it is important to examine the continuum of cancer care with special emphasis on minority groups.

To meet the needs of the local black community, two leading Southeastern universities have come together to form **DSN**. As a joint program of UAB and The University of Southern Mississippi, DSN is dedicated to eliminating the disparity in cancer death rates between blacks and whites in the Deep South. DSN concentrates its efforts in the rural areas encompassed in the Black Belt of Alabama and the Delta of Mississippi, as well as two poor urban areas: Alabama's Jefferson County and Mississippi's Hattiesburg/Laurel Metro community.

DSN calls upon the strengths and resources of established partnerships and coalitions in Alabama and Mississippi to provide minorities with access to effective cancer interventions, including awareness and educational activities and enrollment opportunities in clinical trials. The program focuses on breast and cervical cancer, and provides guidance on issues of nutrition and physical activity.

ADVOCACY

According to the Institute of Medicine (IOM) (2005), to ensure the best possible outcomes for cancer survivors, cancer professionals should:

1. Raise awareness of the medical, functional and psychosocial consequences of cancer and its treatment
2. Define quality healthcare for cancer survivors and identify strategies to achieve it
3. Improve the quality of life of cancer survivors through policies to ensure their access to psychosocial services, fair employment practices and health insurance

Community-based efforts are needed so that survivors are aware of the ongoing health concerns related to cancer survivorship, including surveillance for cancer recurrence, surveillance for second cancers, late effects of cancer treatment and behavioral risk factors.

The development of specialty survivorship programs at cancer centers in Alabama should increase the cancer survivors who have access to a medical home and to a comprehensive supportive and palliative care program.

It is important to advocate for legislation to mandate that insurance companies address quality of life issues during and after treatment and long-term plans.

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Follow-up Care

The IOM reports that primary care physicians and other health care providers often are not especially familiar with the consequences of cancer and seldom receive explicit guidance from oncologists. Furthermore, they note a wide variation in care due to a lack of clear evidence for what constitutes best practices in caring for patients with a history of cancer. They recommend a “survivorship care plan” for each patient summarizing information critical to the individual’s long-term care such as the timing and content of follow-up visits, tips on maintaining a healthy lifestyle and preventing recurrent or new cancers, the availability of psychological and support services and legal rights affecting employment and insurance (IOM, 2005).

Treatment of childhood cancer often occurs during important periods of physical development and psychological development. Complications, disabilities, or adverse outcomes that are the result of the disease process, the treatment, or both, are generally referred to as “late effects.” The most common late effects of childhood cancer are neurocognitive and psychological, cardiopulmonary, endocrine (e.g., those affecting growth and fertility), musculoskeletal and related to second malignancies (IOM, 2003).

The IOM (2003) suggests the follow-up of survivors of childhood cancer is made easier when children with cancer are treated in specialized centers of care. Nearly 50 to 60 percent of children with cancer are initially treated in specialized cancer centers, however it is estimated that only 40 to 45 percent are receiving follow-up care in specialized clinics. The report suggests four supportive care components important to address in follow-up programs:

1. Services to address the psychological implications of cancer to survivors and their families
2. Educational support through school transition programs
3. Personnel available to assist with issues related to insurance and employment problems
4. A plan to facilitate the transition of grown survivors of childhood cancer into adult systems of care

NATIONAL TRENDS

According to the National Cancer Institute’s Cancer Trend Progress Report (2010) better patterns of care and clinical trials have improved treatment

for breast, colon, lung, prostate and ovarian cancers. People with leukemia, lymphoma and pediatric cancers are also benefiting from improved treatments. With more people benefiting from early detection and successful treatment of cancer, the landscape of survivorship has changed. These medical advances are improving both the quality and length of life, with many survivors resuming their regular lifestyle.

Post-treatment outcomes may differ by age and race. Studies have shown that minorities and older patients are less likely to receive certain treatments such as post surgical chemotherapy for late stage breast, lung or colon cancer cases. And the financial burden to the people diagnosed can be catastrophic particularly as care continues over years. Using data from 2006, the economic burden nationally was highest for breast (\$13.8 billion), colorectal (\$12.2 billion), lung (\$10.3 billion), lymphoma (\$10.2 billion), and prostate (\$9.9 billion) cancers. Expenditures for cancer care can be divided into three phases: (1) the initial diagnosis, (2) the continuing or monitoring phase and (3) the last year of life. For all cancers, the first and third phases have the highest expenditures. The financial costs of cancer will increase as new advanced, expensive treatments are adopted as the standard of care.

EXAMPLES OF FOLLOW-UP CARE IN ALABAMA

At **Clearview Cancer Institute** in Huntsville, patients are followed by their oncologist/hematologist after completing treatment in effort to assure they receive an appropriate post treatment care plan. Follow-up care plans are customized to specific disease states to include frequency of visits and assessments. For example, colorectal cancer patients and lung cancer patients are followed for a minimum of seven years with more frequent visits in the first two years and disease specific assessments; breast cancer patients are followed for a minimum of five years. Additionally, basic follow-up regimens with visits annually or up to 4 times a year may be added to a patient’s care plan.

ADVOCACY

Health care providers need guidance and guidelines for directing the care of cancer survivors, particularly survivors of childhood cancers.

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Palliative Care

Palliative therapy is “treatment given to relieve the symptoms and reduce the suffering caused by cancer and other life-threatening diseases. Palliative therapies are given together with other cancer treatments, from diagnosis through treatment, survivorship, recurrence or advanced disease and end of life” (NCI, 2011). Palliative care clinics and hospices “play a role in providing symptom control including pain control and psychosocial and spiritual support for cancer survivors” (Hui, 2010). The American Society of Clinical Oncology has supported integration of palliative care as a routine part of comprehensive cancer care by 2020 (Ferris, 2009).

NATIONAL TRENDS

A recent survey found that NCI cancer centers were significantly more likely to have a palliative care program (50/51, 98 percent) compared to non-NCI designated centers (39/50, 78 percent). However, less than half of the palliative care programs surveyed were equipped with an outpatient clinic, palliative care unit or hospice facility. Patients with cancer tended to be referred late in the disease trajectory which may be related to limited access. Improvement in delivery of palliative care will depend on increased training of palliative care professionals and oncologists, education of survivors and families and integration of palliation into routine cancer care. (Hui, 2010)

There is increasing recognition of the role of palliative care from the time of cancer diagnosis through the balance of a patient’s life. A recent study (Ternel, 2010) showed that among patients with metastatic non-small-cell lung cancer, those receiving early palliative care had less aggressive care at the end of life but longer survival. Programs that deliver palliative care early in the course of disease have the greatest potential for benefit to the cancer patient.

Growth in the number of palliative care programs and palliative care training programs will enhance access to care for these types of services for patients and families. Barriers remain to early access to palliative care including resistance on the part of cancer care specialists to refer cancer patients to palliative care.

ALABAMA TRENDS

Palliative care services are not available in many parts of Alabama. Alabama continues to receive an ‘F’ grade from the Center to Advance Palliative Care due to the low number of palliative care programs in the state. Symptom management needs to be addressed as patients move through the course of an illness. Kvale (2006) found routine clinical management of cancer patients with insomnia was not in accordance with best practices. In cancer patients, especially in the hospice population, many conditions (such as insomnia or under eating) need attention and research. For instance, studies in homebound older adults have shown that participants at a high risk of under-eating included those who had been hospitalized prior to receipt of home health services (Locher, 2008). Clinical trials are needed to understand these co-morbid symptoms that accompany cancer.

DISPARITIES

Earlier introduction of palliative care principles may allow better communication and more appropriate treatment goals for end-of-life care.

CURRENT ACTIVITIES TO IMPROVE PALLIATIVE CARE AMONG ALABAMIANS WITH CANCER

While not a complete list, these are some of our partners who provide palliative care programs for patients from a variety of backgrounds and with a variety of needs. Many of these centers also offer training in palliative and supportive care.

In 1998, Birmingham’s Cooper Green Mercy Hospital opened the **Balm of Gilead**, a 10-bed inpatient palliative care unit separate from other hospital units. The unit received national attention in 2000 when it was featured in Bill Moyers’ series on death and dying, “On Our Own Terms.” The Balm of Gilead is one of the nation’s first inpatient palliative care programs and provides care for medically underserved, terminally ill patients from a variety of backgrounds. These are people who do not have a place to live, or else do not have support services at home. Area hospice patients are offered respite care (a five-day relief for caregivers), terminal care (for patients or families that don’t want death to occur at home), and palliative care (for those who need control of suffering).

Following the success of the Balm of Gilead, the Birmingham Veterans Affairs (VA) opened the **Safe Harbor Palliative Care Unit** in 2005, a first in the nation's VA system. Under the leadership of Dr. Amos Bailey, founder and former medical director of the Balm of Gilead, the unit provides comprehensive comfort and end-of-life care. Safe Harbor also supports the transitional care needs of patients with advanced, multi-morbid conditions.

UAB provides several palliative care programs. **The UAB Center for Palliative and Supportive Care** provides outpatient clinics for patients needing symptom management, goal setting and related services. These clinics specialize in the treatment of patients dealing with current or previous cancer therapies, as well as a wide variety of other conditions, including heart disease, dementia and HIV. The Center also offers physician training in palliative care issues to fellows and medical residents.

The UAB Center for Psychiatric Medicine houses the **UAB Hospital Palliative and Comfort Care Unit**, which provides services and support to patients with advanced, life-threatening conditions. In addition to symptom management, the Unit supports patient transition to palliative care settings when it becomes appropriate.

Patients may also seek **Palliative Care Consult Services** at UAB and the Birmingham VA Medical Center via the Palliative Care Program. This program is in place to assist with the decision making that accompanies palliative healthcare needs, including determining care goals, setting up a symptom management plan, providing spiritual and psychosocial support, and figuring out the most appropriate setting in which the patient's care will take place.

The Children's Health System Palliative Care Team at Children's Hospital in Birmingham is a specially trained team that provides comfort care to those with advanced, life-threatening or life-limiting illness. The teams are used to support patients by helping them deal with all levels of suffering including physical, social, emotional and spiritual. Every nursing unit at Children's Hospital can make a palliative care consultation request. This allows patients to stay with their current physician while the Palliative Care Team visits them.

At Eliza Coffee Memorial Hospital/Shoals Hospital in Muscle Shoals, Alabama, **Senior's Choice** uses a team approach to relieve suffering and improve quality of life for patients with advanced illness and their families. Palliative care is offered along with all other appropriate medical treatments to lessen pain, to give temporary relief and to improve the quality of time a person has remaining by treating symptoms only. It still allows a person the opportunity to continue disease-modifying treatments such as chemotherapy if they choose.

At **USA-MCI** palliative care is a key and important component of cancer care. MCI's fellowship-trained staff provides palliative and supportive care for patients with advanced illnesses and their families.

Palliative Care continued

ADVOCACY

Increased effort and advocacy should be directed to improving provider knowledge in the care of patients at the end of life. This will improve quality of life, pain and symptom management in cancer survivors.

A media advocacy campaign should be implemented to increase awareness on cancer pain and quality of life.

It will be important to incorporate training into patient navigation programs to address quality of life and long-term plans.

Racial and cultural differences have been identified in treatment preferences for end-of-life

care in hypothetical illness scenarios. One study found that low levels of advance planning were associated with lower patient-proxy agreement. Black proxies tended to make under-treatment errors and Caucasian proxies tended to make overtreatment errors (Schmid, 2009). More work is needed to suggest specific interventions and culturally sensitive approaches in practice. Informational resources for the public explaining advance directives and palliative and end of life care are necessary to ensure all can access services when needed.

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Hospice

Hospice is a program that provides end of life care at home, in free-standing facilities, or within hospitals. The goal is to provide expert support for the physical, emotional and spiritual needs of patients and their families when illness is no longer curable and death is expected in six months or less (NCCS, 2004).

NATIONAL TRENDS

Nationally, use of hospice care increased from approximately 219,300 discharged hospice-care patients in 1992 to 1,045,100 in 2007. In 1992, three out of four hospice patients (approximately 163,600) had a primary diagnosis of cancer, compared with 55,500 patients with all other diseases. In 2007, less than half of patients (42 percent) had a primary diagnosis of cancer, for a total of 447,600 cancer patients, compared with 597,500 patients with all other diseases (CDC, 2007).

The National Hospice and Palliative Care Organization (NHPCO) website, www.nhpco.org, contains a wealth of information, including information from *Facts and Figures 2010: Hospice Care in America*. Hospice and palliative care can improve and prolong the lives of many terminally ill patients due to better management of symptoms leading to stabilization of their conditions. Findings of a major study demonstrated that hospice services save money for Medicare and bring quality care to patients with life-limiting illness and their families (Taylor, 2007). Researchers at Duke University found that hospice reduced Medicare costs by an average of \$2,309 per hospice patient. Additionally, the study found that Medicare costs would be reduced for seven out of 10 hospice recipients if hospice was used for a longer period of time. For cancer patients, hospice use decreased Medicare costs up until 233 days of hospice care. For non-cancer patients, there were cost savings seen up until 154 days of care (Taylor, 2007).

Yet, the 2010 *NHPCO Facts and Figures* reports the national median length of stay was 21.1 days. 34.4 percent died or were discharged within seven days of admission. Surveys of pediatric oncology patients (Fowler, 2006) have also shown that some pediatric patients are referred to hospice late in the disease course. Late referral continues to be a frustration for hospice providers in Alabama and among the hospice and palliative care-associated members of the Coalition.

Anthony Back, M.D., and colleagues (2009), conducted a longitudinal, qualitative study of patients, family caregivers, physicians and nurses, drawn from a community-based sample. According to this study, before their deaths, patients worried about physician abandonment. Back related this worry to the loss of continuity between the physician and patient. Patients expressed concern that when death approached, a relative stranger would take over their care. Patients feared this form of abandonment because they placed great value on the professional expertise of their primary physician and also because they felt the loss of their personal relationship and familiarity with specific doctors and nurses.

ALABAMA TRENDS

According to Alabama law:

A Hospice program is defined as a public agency, private organization, or subsidiary of either of these that is primarily engaged in providing Hospice Care to the terminally ill individual and families and is separately licensed by the State of Alabama and certified by Centers for Medicare/Medicaid Services (CMS) for the provision of all required levels of Hospice Care... Hospice is a coordinated program providing a continuum of home and inpatient care for the terminally ill patient and family and/or significant other. It employs interdisciplinary teams acting under the direction of an identifiable hospice administration. The program provides palliative and supportive care to meet the special needs arising out of the physical, emotional, spiritual, social and economic stresses which are experienced during the final stages of illness and bereavement. The care is available twenty-four hours a day, seven days a week. (Code of Alabama, 1975).

A moratorium exists for new inpatient hospices in Alabama – currently three exist with ten beds each in the state. The State Health Plan reflects no need for new home care hospices in the state until at least 2013.

Todd Jenkins, UAB School of Public Health, Kathryn Chapman, ADPH Director, ACCCP, and Dorothy Harshbarger, State Vital Records Registrar and Director of the ADPH Center for Health Statistics, used vital records data to describe

Hospice continued

patterns of hospice use among cancer decedents in Alabama. To ascertain hospice use, they linked death certificates from 2002 through 2005 for people who died from cancer to listings of deaths reported by hospices. To evaluate accessibility of care, they calculated straight-line distances between decedent residence at death and the hospice providing care. They used these distances to estimate the reach of each hospice and identify the number of hospice nonusers residing in these areas.

During the study period, 52 percent of cancer decedents in Alabama received hospice care from 165 hospices. Nearly two-thirds of Alabama counties contained at least one hospice. The median distance between decedent's residence and the hospice providing care was 9.8 miles. This distance was slightly shorter for blacks than whites and roughly equal by sex (Jenkins, 2009).

Currently, residents in Alabama have at least a choice of two hospices in their residential area (Osborne, 2011). Likewise Jenkins (2009) found that 60 percent of hospice nonusers lived within 10 miles of a facility (the median distance among users), and 77 percent lived within 20 miles, which implies that distance is not a barrier to hospice care for most hospice nonusers in Alabama.

The Alabama State Health Planning and Development Agency, in cooperation with the Alabama Hospice Organization, is conducting a 2010 Annual Report for Hospice Providers as part of the requirements for maintaining state licensure. This report will capture program type, patient volume, level of care, admissions and deaths by location, length of service by category, live discharges, reimbursement source, diagnosis, admissions by county of residence, age, race and gender and revenue and expenses. Data of this nature will be invaluable to understanding the length of stay variances throughout the state and set a baseline for improvement.

Compared to 42 percent of discharged hospice patients nationally, 45.2 percent of the deaths in Alabama under the care of hospice had an underlying cancer cause of death. Whites (53.6 percent) used hospice at a significantly higher rate than blacks (47.0 percent), but the rate of use was similar for women (53.2 percent) and men (51.0 percent). For people who were eligible for Medicare, 53.0 percent received hospice care (Jenkins, 2009).

DISPARITIES

Based on the study by Jenkins (2009), Alabamians use hospice at lower rates than observed elsewhere. Six urban areas were identified as clusters of census tracts with significantly lower rates of hospice use. The largest and most striking cluster centered on the counties of Montgomery, Lowndes and Autauga. The second notable area centered on Etowah, Cherokee and Calhoun counties.

Alabama hospice data by race, sex and age group show that black men had the lowest rates of use for most age groups. White women, followed by white men, had the highest rates of use across most age categories. Likewise, whites (53.6%) used hospice care at a significantly higher rate than did blacks (47.0%), and the proportion of use for women (53.2%) was marginally larger than that for men (51.0%). Slightly larger proportions of white women (54.7%) than white men (52.6%) and of black women (48.2%) than black men (46.0%) received hospice care from 2002 to 2005 (Jenkins, 2009).

ADVOCACY

Alabamians used hospice at a lower rate than observed elsewhere in the United States. Barriers to hospice care in Alabama must be identified and addressed. Late referral was not a variable able to be captured by the merger of hospice and death certificate data but length of stay will be collected from the Alabama State Health Planning and Development Agency, in cooperation with the Alabama Hospice Association, through the 2010 Annual Report for Hospice Providers. These data should be studied for patterns of disparity since areas of significantly lower hospice use have already been identified in the state.

EXAMPLES OF CURRENT ACTIVITIES TO IMPROVE HOSPICE CARE AMONG ALABAMIANS WITH CANCER

Ellen L. Csikai, LCSW, MPH, Ph.D. is Professor of Social Work at the University of Alabama, Tuscaloosa, and Editor of the *Journal of Social Work in End-of-Life and Palliative Care*. She is interested in the decision-making process in choosing or declining hospice after being offered the program during hospital discharge. In a primarily qualitative study of cancer patients and their family caregivers within a week of hospital discharge and two and four months post-discharge,

Dr. Csikai's research will address the psychosocial factors that influence decisions to choose hospice care (or other care) at the initial decision point or that influence a change in decisions over time. In an additional analysis, Dr. Csikai will examine potential differences in perceptions about end-of-life care communication between white and black participants and between patients and their caregivers.

The **Alabama Hospice Organization (AHO)** works to ensure the highest possible care for Alabama's terminally ill patients by acting as a grassroots political voice for hospice professionals and their clients. This non-profit organization conducts awareness sessions throughout the state that provide education to its members while increasing the visibility of the hospice industry in Alabama. The AHO strives to establish and maintain the highest ethical standards for the industry while upholding a vision that includes:

- Providing up-to-date information for members regarding end-of-life care.
- Serving as the premiere resource for public policy designed to improve end-of-life care options in Alabama.
- Keeping members up-to-date on the latest rules, regulations and laws regarding end-of-life care.
- Providing superior, affordable education to members.
- Acting as a liaison between members and other hospice organizations in the state and across the country.
- Ensuring that Alabama citizens remain informed and educated about their choices for end-of-life care (AHO, 2011).

In June 2010, Jacksonville State University (JSU) hosted the Northeast Alabama Survivorship Conference with over 140 attendees. These partners were representatives of hospice organizations as well as social workers in the community. A leading school of social work in the Northeast Appalachian area of the state, JSU recognizes the importance of building a workforce prepared to work in the cancer arena and specifically presents to their students the importance of careers in end of life care.

The **Southeast Cancer Network** was incorporated in March 1996 with the vision of centralizing the best cancer care physicians and clinics in Alabama and the Southeast. Because of its centralized design, the network's local treatment facilities are able to offer the most modern, multi-disciplinary cancer treatment techniques. Within Southeast Cancer Network, each autonomous treatment center has access to all of the partnerships formed by the network's central office, a few of which are home health clinics, hospice agencies, and other health care providers. The Network has locations in the following Alabama cities: Alabaster, Boaz, Fort Payne, Montgomery, Sylacauga, Anniston, Tuscaloosa, Jasper, Winfield and Demopolis. Each center is staffed with board-certified medical and radiation oncologists, oncology-certified nurses, and support services such as licensed social workers and registered dietitians. The network also provides cancer screening and educational programs, financial counseling, patient support groups, volunteer programs and preventive programs to Alabama communities.

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Survivorship

Goal: *Alabamians diagnosed with cancer will have increased access to quality cancer treatment services including follow-up, palliative care and hospice care from the point of diagnosis through the balance of their lives.*

S-AL-2011-2015-1

By 2015, set a baseline and increase the proportion of all cancer survivors receiving palliative care services.

- Baseline: 8 hospitals providing palliative care services; unknown number of patients per year
- Target: 14 hospitals providing palliative care services
- Information source: Alabama Hospital Association
Strategies:
 - Increase awareness among health care professionals and cancer patients, including children, about the availability, range of services and benefits of palliative care.
 - Promote awareness of, and access to, reliable directories and databases of palliative care providers and services in the state, e.g. the Alabama Hospital Association.
 - Educate about adequate reimbursement of palliative care services by Medicaid, Medicare and private insurance.

S-AL-2011-2015-2

By 2015, increase the proportion of all cancer survivors receiving hospice care services from 52.0% to 58.0%.

- Baseline: 52.0%
- Target: 58.0%
- Information source: Jenkins et al. 2009
Strategies:
 - Increase awareness among health care professionals and the public about the availability, range of services and benefits of hospice care for cancer survivors including children.
 - Promote awareness of, and access to, reliable directories and databases of hospice care providers and services in the state.
 - Educate about adequate reimbursement of hospice care services by Medicaid, Medicare and private insurance.
 - Educate pastors, clergy, lay ministers and churches about the hospice benefit for end-of-life care and provide information about ways they can advocate for their parishioners.
 - Seek research about disparities in hospice delivery, length of stay and acceptance in order to understand and eliminate obstacles to hospice care.

S-AL-2011-2015-3

By 2015, increase the proportion of survivors who have advance directives.

- Baseline: Developmental
- Target: Developmental
- Information source: To be determined
Strategies:
 - Advocate for changes in the state's Advance Directive legislation to make it easier for Alabamians to understand, communicate and document their end-of-life treatment preferences.
 - Seek new avenues to educate low income persons, e.g. home health recipients about advance directives.
 - Partner with the Alabama State Bar to advertise and distribute An Advance Health Care Planning Pamphlet.

S-AL-2011-2015-4

Increase the availability and utilization of psychosocial and spiritual services to cancer survivors.

- Baseline: Developmental
- Target: Developmental
- Information source: To be determined
Strategies:
 - Educate Alabamians about the effective management of pain, other physical symptoms and psychosocial and spiritual issues of survivors with end stage cancer.
 - Advocate for inclusion of alternative/complementary medicine options as covered benefits.
 - Analyze gaps and barriers for cancer survivors to receive psychosocial and spiritual services before, during and after treatment and implement strategies to reduce them.

HEALTH INFORMATION TECHNOLOGY (IT), HEALTH COMMUNICATION AND SURVEILLANCE

INFORMATION DISSEMINATION NATIONAL TRENDS

Healthy People 2020 takes steps to avoid deepening existing disparities in access to health and medical information and to ensure that the information it provides is available to and accommodates all – including those who lack access to computers and the Internet. As defined in the Healthy People 2020 draft, the term “digital divide” refers to the gap between individuals, households, businesses and geographic areas at different socio-economic levels and with different accommodation needs, in terms of both their opportunities to access information and communication technologies and their use of the Internet for a wide variety of activities. There continues to be a digital divide in access to computers and the Internet in general, as well as access to high-speed, broadband connectivity. Therefore, we will also make Alabama Cancer Control Plan 2011-2015 available through multiple media for those who cannot or prefer not to access it online.

ALABAMA TRENDS

Although broadband has been called the great infrastructure of the 21st century, the U.S. is behind in the adaption of such technology. Despite the growing importance of this technology over 30% of households have no access to broadband at home (U.S. Department of Commerce, 2010).

DISPARITIES

The affordability of broadband remains among the major reasons for not having broadband connectivity at home. Nationally, White Non-Hispanic usage of broadband in the home was 65.7% compared to 45.9% for Black Non-Hispanic users (U.S. Department of Commerce, 2010).

EXAMPLES OF CURRENT ACTIVITIES TO DISSEMINATE DATA RELEVANT TO CANCER CONTROL IN ALABAMA

Currently, the National Telecommunications and Information Administration (NTIA) is working to develop and maintain a comprehensive inventory map of broadband service capability and availability to be published in 2011.

ELECTRONIC MEDICAL RECORDS NATIONAL TRENDS

In February 2009 the American Reinvestment & Recovery Act (ARRA) was enacted. The act contains measures designed to strengthen and modernize America’s infrastructure. One such measure, the “Health Information Technology for Economic and Clinical Health Act” (HITECH), lends support to the electronic health records-meaningful use (EHR-MU) concept put forth by Centers for Medicare & Medicaid Services (CMS) and the Office of the National Coordinator for Health IT (ON).

HITECH labels the meaningful use of certified EHR technology as a critical goal. “Meaningful use” means the technology will be utilized to:

- Improve quality, safety, efficiency, and reduce health disparities.
- Engage patients and their families in their health.
- Improve care coordination.
- Improve population and public health.
- Ensure adequate privacy and security protection for personal health information.

A central element of EHR technology is Clinical Decision Support (CDS) systems. The main purpose of modern CDS systems is to assist clinicians at the point of care by allowing them to interact with the system to help determine diagnosis, analysis, etc. of patient data (M.Allison, Personal Communication, July 15, 2011). CDS systems deliver tools electronically in such forms as alerts and reminders for care, clinical guidelines, order sets, data, documentation templates, diagnostic support, reference information, portals, and much more. Practices that incorporate CDS technology into their workflows will ultimately realize benefits in patient quality of care, outcomes, safety, efficiency, cost-savings, and provider and patient satisfaction. CDS can provide the answer for a wide range of clinical needs in the U.S., including accurate diagnoses, disease prevention, adverse event alerting, lowering costs of care, improving operational efficiencies and reducing patient inconvenience. However, the key to using health IT successfully in the clinical workflow requires contemplation of the goals, users, and patient flow (Berner, 2009).

CMS has constructed an incentive payment plan for eligible professionals and hospitals who

(continued on next page)

Electronic Medical Records continued

work to adopt certified EHR technology. The payments range from \$44,000 over five years for Medicare providers to \$63,750 over six years for Medicaid providers.

CMS has set up adoption of EHR technology as a phased approach, with 2011-2012 encompassing the data capture and sharing phase, 2013-2014 the advanced clinical processes and 2015 dedicated to improved outcomes. The goal is to have a strong network of partners in place by 2015 that will result in a reduction in disparities, better control of chronic disease and a healthcare system that promotes a healthy lifestyle and is accountable for the public health (CDC, 2011).

The Veterans Health Administration (VHA) has developed its own Electronic Medical Records system, the Vista-Office Electronic Health Record (VOE). The VOE system is offered to small clinics and physicians offices at a low cost.

The Center for Health Information Technology (CHIT), which was established by the American Academy of Family Physicians (AAFP), is working with 10 major tech companies to promote the use of EMRs by family physicians. This partnership could result in a 15–50 percent reduction in the price of EMR systems (M. Allison, Personal Communication, April 15, 2011).

The Patient Electronic Care System (PECYS) is a new version of an old software system that has been modified to efficiently track preventive screening services. The software is able to assemble lists of age-eligible patients with specific conditions and track whether or not they have had applicable screening procedures. While it does not yet contain a billing or scheduling module, the software does generate automatic reminders for physicians and patients.

DISPARITIES

There are a number of factors that need to be addressed in order to streamline use of EHRs in the state and the nation as a whole:

- Affordability.
- Compatibility with both older and newer systems.

- Interoperability, or the ability to share information with other systems.
- Data stewardship to ensure privacy and proper use of medical information.

EXAMPLES OF CURRENT ACTIVITIES TO PROMOTE EHR USE IN ALABAMA

The Alabama Quality Assurance Foundation (AQAF) is working to assist practices and eligible providers in the implementation of certified EHR technology. These practices must be willing to use decision support tools to improve quality of care and care coordination, and to facilitate patient and family engagement. This involves providing information that:

- Is evidence-based and pertinent to the circumstance.
- Involves the right people, from the clinicians to the care-givers.
- Is provided in the proper format, whether it be an order set or an alert at the point-of-care.
- Goes through the right channels.
- Is available at the best time in the workflow, such as the time of decision or the time of need.

In order to ensure that new technology has the maximum positive impact on patient care, AQAF is working with practices to help them streamline their workflow, track and report data accurately and efficiently, set and celebrate both short- and long-term goals, exchange clinical information to improve quality and consistency of patient care, and to report EHR-based PQRS measures. AQAF is also employing conference calls, remote training, web-based training, social networking tools, evidence-based tools, stakeholder conferences and face-to-face training to maximize use of the technology (M. Allison, Personal Communication, April 19, 2011).

ADVOCACY

It is necessary to advocate for increased access to health information technology to improve care and lower costs.

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Surveillance

Goal: *The ACCCC website will become a clearinghouse for all databases relevant to the control of cancer in Alabama.*

HC-AL-2011-2015-1

By 2015, continue to maintain a comprehensive, accessible and up to date electronic directory of all databases relevant to planning and implementing cancer control interventions or conducting cancer control research in Alabama.

- Information source: **ACCCC**

HC-AL-2011-2015-2

Compile a list of databases maintained within ADPH, elsewhere in Alabama and by regional and federal agencies that are relevant to cancer control in Alabama.

- Information source: ADPH, BRFSS
- Strategies:
- Request information on databases relevant to cancer control in Alabama from offices within ADPH and state, regional and federal agencies.
 - Identify published research studies and published reports that include data or references to data on cancer in Alabama.

HC-AL-2011-2015-3

Enhance data collection on cancer prevention and control that reports the differences in the incidence, prevalence, mortality and burden of cancer and related adverse conditions among various subpopulations (differences may be characterized by a disproportionate burden of cancer based on age, gender, race/ethnicity, income, education level, health literacy level, health insurance status, geographic location, language, or other socio-demographic factor).

- Information source: ADPH, BRFSS

HC-AL-2011-2015-4

Enhance survivorship surveillance by studying the feasibility of monitoring, and tracking the progress of cancer survivor's health, economic and psychosocial issues.

- Information source: ADPH, BRFSS
- Strategies:
- Develop the infrastructure for a comprehensive database on cancer survivorship.
 - Partner with the Alabama Statewide Cancer Registry to identify and analyze data that informs about survivorship from date of diagnosis by type of cancer and demographic variables.

HC-AL-2011-2015-5

Partner with agencies across the state to educate healthcare professionals in the ways that meaningful use of Electronic Health Records technology can reduce disparities and enhance research and treatment options for all Alabama patients.

Finding My Way to Electronic Health Records

Regina Benjamin, M.D., M.B.A.

The recent oil spill off the Gulf Coast may prove to be one of the great environmental challenges of our lifetime. It is yet another devastating blow to the Gulf region, a place I call home. My heart goes out to the people there who are concerned about how this latest disaster will affect their livelihood and their health. Though the full effects of the spill remain to be seen, already the health needs of Gulf Coast inhabitants are increasing during this time of crisis. Physicians in the area will need to adapt and find innovative ways to efficiently deliver health care for an already underserved population. I recall my experiences as a physician during the crises of Hurricanes Georges and Katrina and try to remember how I adapted.

The day after Katrina hit, I drove through Bayou La Batre, a small fishing village on the Gulf Coast where I practiced medicine for 23 years. The damage didn't look so bad when I pulled up to my clinic. However, when I opened the door, I nearly fell sick from the smell of dead fish and crabs. Furniture had been tossed around the office every which way. All the patient information — all the paper records — were ruined. I remember thinking that I had tried to prepare for this kind of crisis and recalling that I had strongly considered moving to electronic health records (EHRs). But money was tight, as it was for many small practices throughout the country, and it eventually came down to a choice: I could either install an EHR system or

pay the electricity bill. Searching for a source of courage, I recalled the reasons why I had chosen to become a family physician.

Like many physicians just out of school, I believed strongly in primary care — my mother, father, and brother had all died of preventable diseases. As a National Health Service Corps scholar, I now had the privilege of making a difference in a small community.

Bayou La Batre was my assignment. I was familiar with the town, since I had grown up in nearby Daphne, where my family has been since the early 1800s — the Seafood Capital of Alabama, a shrimping town, where people made their living on the water. But the seafood industry had been hurting, which meant that there was little money for health insurance or out-of-pocket copayments, and more important, that there weren't enough primary care physicians.

Many of my patients spent most of their time on the boats, going out for 2 months at a time. Skipping from coast to coast was part of their job. I remember one patient who had been out for nearly 3 weeks and had used superglue to treat a gash on his hand. My patients had to improvise, and they had few medical options for managing their illnesses, whether acute or chronic. I felt I had arrived in the right place at the right time.

Well, perhaps it wasn't exactly the right time. In 1998, Hurricane Georges made landfall in the Gulf Coast, causing over \$100 million in damage to Alabama alone. My clinic was destroyed. Without a

building in which to treat patients, my nurse Nell Bosarge and I spent the next 2 years driving my pickup truck to their homes. Eventually, I mustered the resources to rebuild the Bayou La Batre Rural Health Clinic — on higher ground this time, and on 4-ft stilts. Meanwhile, we managed to save the drenched paper records of our patients by carefully drying them in the hot Alabama sun.

In 2005, Hurricane Katrina came, again threatening to destroy the Bayou La Batre Rural Health Clinic. We had 48 hours to evacuate the area and, given the new secure location of the building, saw no reason to pack away all the paper medical records. When I returned to the Bayou, the building had been destroyed by the water. Nell and I knew we had to get everything out of there, or else it would mildew. We spent just as much time clearing out the medical records — again placing them in the sun in 90-degree weather to dry them, carefully turning them over — as we did trying to salvage the structure of the place. This time, I could not make house calls to my patients' homes, because the vast majority of their homes had been destroyed, too. Our staff set up a makeshift clinic in the auditorium of the local shelter, while volunteers and donations helped us prepare for a January 2 reopening.

Tragedy befell the Bayou Clinic once again, when, in the early morning hours of New Year's Day, just before our clinic was to reopen, a fire broke out and the

clinic burned to the ground. This time, the precious patient records — the ones that Nell, the staff, and I had spent hours drying and recovering on two separate occasions — were completely destroyed. We were forced to rely on memory and intuition in treating our patients. Any information on allergies, coexisting conditions, and specific family history was now left to recollection.

Having lost the Bayou Clinic three times, I knew we had to have a better way of practicing. I needed to find a way to deliver high-quality health care to people who didn't have a lot of money. From the experiences with the hurricanes and the fire, I knew we had to be able to evacuate the clinic quickly, while still safeguarding the vital patient information. Whereas I had previously decided against installing an EHR system because I couldn't afford one, I now realized I couldn't afford *not* to have one.

Our trials did not go unnoticed. Wonderful people from all over volunteered their time and money to help us rebuild. A generous

donation from a private foundation supported our efforts through the Katrina Phoenix program, helping us rebuild our clinic with computer hardware, in coordination with a generous EHR vendor and with the help of good-hearted student volunteers from Bentley College in Waltham, Massachusetts. They also provided us with support, teaching us how to use the system and helping to implement it in our practice. Needless to say, Nell and I were relieved when we turned on the switch and became a paperless office.

Though it is challenging to persuade some doctors and nurses to convert from paper records, "buy-in" was not an issue at the Bayou Clinic, since Nell and the rest of the staff were adamant about never having to "bake charts in the sun" again. The new system we implemented allowed us to easily track and document our patients' histories; with a click of a button, we could send a prescription or remind patients of upcoming mammograms, thus improving the quality of care. Practicing medicine became eas-

ier for the clinicians and better for the patients.

With the availability of new incentive payments made possible by the Health Information Technology for Economic and Clinical Health Act (HITECH), and assistance for the transition to electronic health records available from regional extension centers, small practices like mine now have the kind of support that I had — and fewer reasons to delay a decision that should have been obvious long ago.

Until the day we turned on our EHR system, I was still using pens with waterproof ink. It is a very good thing — for both me and our patients — that my fellow physicians and I don't need to use those pens anymore.

Disclosure forms provided by the author are available with the full text of this article at NEJM.org.

Dr. Benjamin is the Surgeon General of the U.S. Public Health Service, Washington, DC.

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NETWORKS FOR PLAN DISSEMINATION

NATIONAL TRENDS

A recent article examining the collaborative network involvement among 18 organizations within the Arizona Cancer Coalition found that the structure of the individual networks depended on the type of research collaboration being considered – either discovery, development, or delivery, the three basic dimensions of a research activity. This finding has implications for the data collection of implementation records of the Coalition. The investigation found that the discovery and delivery networks were the most active regarding inter-organizational coordination and collaboration. Organizations such as Cancer Centers were high in all three networks and may be best positioned to foster improvements in cancer prevention and care (Provan, 2010). The reality of most health promotion coalitions is that their members are primarily agency representatives. However, as the authors pointed out, the individuals have some discretion about how much to invest in work-related activities. Their analyses found that informational inclusion and a warm or welcoming atmosphere encourage people to invest more (Wells, 2007). Participation alone does not reduce cancer burden; the evidence-based interventions must be tailored to local needs and norms. Ultimately the intended impact of the **ACCCC** is to reduce the burden of cancer among Alabamians. The relational structure of the **ACCCC** affects coalition-level activity.

ALABAMA TRENDS AND DISPARITIES

Alabama has 67 counties, many of which are rural in nature. It is challenging to plan a meeting location that is convenient to all participants without incurring the expense of an overnight stay. In order to meet this challenge, ADPH has engaged the expertise of an information specialist. This individual will assist in utilizing social marketing to reach Coalition members who may not be able to attend meetings.

EXAMPLES OF CURRENT ACTIVITIES TO DISSEMINATE ACCCC CANCER CONTROL PLAN IN ALABAMA

In June 2010, JSU hosted the Northeast Alabama Survivorship Conference with over 140 attendees. These partners were representatives of hospice

organizations as well as social workers in the community. The conference hosted officers of the **ACCCC** to discuss the Alabama Cancer Control Plan and build networks in NE Alabama.

The **ACCCC** added a Public Information Specialist staff position in August 2010. The primary duties of this position are to increase communication among Coalition members, as well as to publicize Coalition activities outside of the member group.

In August, Coalition members began receiving “Dispatches” from the **ACCCC** office via e-mail. These Dispatches will continue to be sent on an as-needed basis as a way to communicate news and events from within the Coalition to all its members. Everyone on the **ACCCC**’s mailing list receives the Dispatches, and members are invited to submit their own news items or announcements to the Public Information Specialist for sharing with the entire group. Subjects so far have included grant writing workshops offered by a Coalition member, a request for proposals for a grant and notice for a fundraising event.

In September, the Coalition’s official Facebook page was launched. This page will be used to supplement the Coalition’s Dispatches and other forms of communication. In addition to sharing news and events from within the Coalition, we are using the page to link to articles of interest dealing with cancer research, treatments, survivor stories and more from sources ranging from the National Breast Cancer Foundation and the ACS to news outlets such as CNN, USA Today, the New York Times and others.

We will continue to expand our efforts to improve communication within the Coalition over the coming months, as well as seek outlets such as statewide publications and websites with which to share news and achievements of Coalition members with the public. Potential tools that we are considering as of this writing include Twitter, LinkedIn, Google Calendars and many others.

ADVOCACY

It is vital to improve coalition membership throughout the state to ensure delivery of cancer control programs and work to improve communication among coalition members.

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BECOME A MEMBER OF THE ACCCC

To become a member of the Alabama Cancer Control Coalition, please visit alabamacancercontrol.org or call 334-206-5582.

ABBREVIATIONS

| | |
|---|---|
| AAD: American Academy of Dermatology | IARC: International Agency for Research on Cancer |
| AAFP: American Academy of Family Physicians | IHS: Indian Health Service |
| ABCCEDP: Alabama Breast and Cervical Cancer Early Detection Program | IOM: Institute of Medicine |
| ACCCC: Alabama Comprehensive Cancer Control Coalition | IT: Information Technology |
| ACCCP: Alabama Comprehensive Cancer Control Program | JSU: Jacksonville State University |
| ACES: Alabama Cooperative Extension System | JTL: Joy To Life |
| ACS: American Cancer Society | LPGA: Ladies Professional Golf Association |
| ADECA: Alabama Department of Economic and Community Affairs | MCI: Mitchell Cancer Institute |
| ADPH: Alabama Department of Public Health | MHRC: Minority Health and Health Disparities Research Center |
| ADPH NPA: Alabama Department of Public Health Nutrition and Physical Activity Division | NCCCP: National Comprehensive Cancer Control Program |
| ADPH TPCB: Alabama Department of Public Health Tobacco Prevention and Control Branch | NCCN: National Comprehensive Cancer Network |
| AHO: Alabama Hospice Organization | NCI: National Cancer Institute |
| AMA: American Medical Association | NHPCO: National Hospice and Palliative Care Organization |
| AQAF: Alabama Quality Assurance Foundation | NIH: National Institutes of Health |
| ARRA: American Reinvestment & Recovery Act | NPA: Nutrition and Physical Activity Division |
| ASCO: American Society of Clinical Oncology | NSCH: National Survey of Children's Health |
| ASCR: Alabama Statewide Cancer Registry | PE: Physical Education |
| BMI: Body Mass Index | PGA: Professional Golf Association |
| BRFSS: Behavioral Risk Factor Surveillance System | PhRMA: Pharmaceutical Researchers and Manufacturers of America |
| CCC: Comprehensive Cancer Control | PSA: Prostate-specific Antigen |
| CDC: Centers for Disease Control and Prevention | REACH: Racial and Ethnic Approaches to Community Health |
| CEED: Center of Excellence in the Elimination of Disparities | RHCF: Russel Hill Cancer Foundation |
| CHA: Community Health Advisors | RWJF: Robert Wood Johnson Foundation |
| CHAN: Community Health Advisors Network | SAMC: Southeast Alabama Medical Center |
| CMS: Centers for Medicare/Medicaid Services | SCC: Southern Cancer Center |
| CoC: Commission on Cancer | SCHIP: State Children's Health Insurance Program |
| CRC: Colorectal Cancer | SPORE: Specialized Program of Research Excellence |
| CT: Computed Tomography | STD: Sexually Transmitted Disease |
| CTFA: Coalition for a Tobacco Free Alabama | STI: Sexually Transmitted Infection |
| DRE: Digital Rectal Exam | TPCB: Tobacco Prevention and Control Branch |
| DSN: Deep South Network for Cancer Control | TFA: Coalition for a Tobacco Free Alabama |
| EAMC: East Alabama Medical Center | UAB: The University of Alabama at Birmingham |
| EHR: Electronic Health Records | USA-MCI: The University of South Alabama Mitchell Cancer Institute |
| EHR-MU: Electronic Health Records Meaningful Use | USDA: U.S. Department of Agriculture |
| EPA: Environmental Protection Agency | USPSTF: U.S. Preventative Services Task Force |
| FDA: Food and Drug Administration | UV: Ultraviolet Light |
| FIT: Fecal Immunochemical Test | VA: Veterans Affairs |
| HITECH: Health Information Technology for Economic and Clinical Health Act | VFC: Vaccines For Children |
| HPV: Human Papillomavirus | VHA: Veterans Health Administration |
| | WHO: World Health Organization |
| | YRBS: Youth Risk Behavior Surveillance |

American Cancer Society Screening Guidelines for Early Detection of Cancer

BREAST CANCER

- ✓ Yearly mammograms are recommended starting at age 40 and continuing for as long as a woman is in good health.
- ✓ Clinical breast exam (CBE) about every 3 years for women in their 20s and 30s and every year for women 40 and over.
- ✓ Women should know how their breasts normally look and feel and report any breast change promptly to their health care provider. Breast self-exam (BSE) is an option for women starting in their 20s.

COLORECTAL CANCER AND POLYPS

Beginning at age 50, both men and women should follow one of these testing schedules:

Tests that find polyps and cancer

- ✓ Flexible sigmoidoscopy every 5 years*, or
- ✓ Colonoscopy every 10 years, or
- ✓ Double-contrast barium enema every 5 years*, or
- ✓ CT colonography (virtual colonoscopy) every 5 years*

Tests that primarily find cancer

- ✓ Yearly fecal occult blood test (gFOBT)**, or
- ✓ Yearly fecal immunochemical test (FIT) every year**, or
- ✓ Stool DNA test (sDNA), interval uncertain**

* If the test is positive, a colonoscopy should be done.

** The multiple stool take-home test should be used. One test done by the doctor in the office is not adequate for testing. A colonoscopy should be done if the test is positive.

CERVICAL CANCER

- ✓ All women should begin cervical cancer screening about 3 years after they begin having vaginal intercourse, but no later than 21 years old. Screening should be done every year with the regular Pap test or every 2 years using the newer liquid-based Pap test.
- ✓ Beginning at age 30, women who have had 3 normal Pap test results in a row may get screened every 2 to 3 years. Women older than 30 may also get screened every 3 years with either the conventional or liquid-based Pap test, plus the human papilloma virus (HPV) test.
- ✓ Women 70 years of age or older who have had 3 or more normal Pap tests in a row and no abnormal Pap test results in the last 10 years may choose to stop having Pap tests.
- ✓ Women who have had a total hysterectomy (removal of the uterus and cervix) may also choose to stop having Pap tests, unless the surgery was done as a treatment for cervical cancer or pre-cancer. Women who have had a hysterectomy without removal of the cervix should continue to have Pap tests.

PROSTATE CANCER

The American Cancer Society recommends that men make an informed decision with their doctor about whether to be tested for prostate cancer. Research has not yet proven that the potential benefits of testing outweigh the harms of testing and treatment. The American Cancer Society believes that men should not be tested without learning about what we know and don't know about the risks and possible benefits of testing and treatment.

Starting at age 50, talk to your doctor about the pros and cons of testing so you can decide if testing is the right choice for you. If you are African American or have a father or brother who had prostate cancer before age 65, you should have this talk with your doctor starting at age 45. If you decide to be tested, you should have the PSA blood test with or without a rectal exam. How often you are tested will depend on your PSA level.

U.S. Preventative Services Task Force: Cancer Screening Recommendations for Adults

BREAST CANCER

- ✓ The USPSTF recommends biennial screening mammography for women aged 50 to 74 years. Grade: **B recommendation**.
- ✓ The decision to start regular, biennial screening mammography before the age of 50 years should be an individual one and take patient context into account, including the patient's values regarding specific benefits and harms. Grade: **C recommendation**.
- ✓ The USPSTF concludes that the current evidence is insufficient to assess the additional benefits and harms of screening mammography in women 75 years or older. Grade: **I Statement**.
- ✓ The USPSTF recommends against teaching breast self-examination (BSE). Grade: **D recommendation**.
- ✓ The USPSTF concludes that the current evidence is insufficient to assess the additional benefits and harms of clinical breast examination (CBE) beyond screening mammography in women 40 years or older. Grade: **I Statement**.
- ✓ The USPSTF concludes that the current evidence is insufficient to assess the additional benefits and harms of either digital mammography or magnetic resonance imaging (MRI) instead of film mammography as screening modalities for breast cancer. Grade: **I Statement**.

COLORECTAL CANCER AND POLYPS

- ✓ The USPSTF recommends screening for colorectal cancer (CRC) using fecal occult blood testing, sigmoidoscopy, or colonoscopy, in adults, beginning at age 50 years and continuing until age 75 years. The risks and benefits of these screening methods vary. Grade: **A Recommendation**.
- ✓ The USPSTF recommends against routine screening for colorectal cancer in adults age 76 to 85 years. There may be considerations that support colorectal cancer screening in an individual patient. Grade: **C Recommendation**.

- ✓ The USPSTF recommends against screening for colorectal cancer in adults older than age 85 years. Grade: **D Recommendation**.
- ✓ The USPSTF concludes that the evidence is insufficient to assess the benefits and harms of computed tomographic colonography and fecal DNA testing as screening modalities for colorectal cancer. Grade: **I Statement**.

CERVICAL CANCER

- ✓ The USPSTF strongly recommends screening for cervical cancer in women who have been sexually active and have a cervix. Grade: **A Recommendation**.
- ✓ The USPSTF recommends against routinely screening women older than age 65 for cervical cancer if they have had adequate recent screening with normal Pap smears and are not otherwise at high risk for cervical cancer. Grade: **D Recommendation**.
- ✓ The USPSTF recommends against routine Pap smear screening in women who have had a total hysterectomy for benign disease. Grade: **D Recommendation**.
- ✓ The USPSTF concludes that the evidence is insufficient to recommend for or against the routine use of new technologies to screen for cervical cancer. Grade: **I Statement**.
- ✓ The USPSTF concludes that the evidence is insufficient to recommend for or against the routine use of human papillomavirus (HPV) testing as a primary screening test for cervical cancer. Grade: **I recommendation**.

PROSTATE CANCER

- ✓ The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of prostate cancer screening in men younger than age 75 years. Grade: **I Statement**.
- ✓ The USPSTF recommends against screening for prostate cancer in men age 75 years or older. Grade: **D Recommendation**.

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